COVER PAGE AND DECLARATION

	Practitioner Doctorate
Specialisation:	DBA
Affiliated Center:	CEO
Module Code & Module Title:	DSSR980 - DBA FINAL DESSERTATION.
Students' Full Name:	ALAAELDIN FATHI ALI BAIOUMI
Word Count:	32,577
Date of Submission:	10/02/2022

I confirm that this assignment is my own work, is not copied from any other person's work (published/unpublished), and has not been previously submitted for assessment elsewhere.

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European International University

Business Administration Department

The implementation of electronic payment Services on the Employees performance of Microfinance institutions in Egypt.

(Case study of REDEC Qena -Microfinance Institution in Egypt)

A Thesis submitted as a partial fulfilling of DBA

(Doctor of Business Administration) Degree

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2021-2022

Dedication

For everyone who loves life…

For everyone who does not want to waste their time in bureaucracy and traditions…

For everyone who loves to work, learn and change…

For all who seek the best in their lives.

I dedicate this work and effort …….

Acknowledgement

Acknowledgment All thanks to ALLAH, the mighty God for the blessings showered around me all over the journey. I spent 34 years of experiences. I worked in the financial institution development sector, in MENA Region and East Europe, when I got my master's degree in Business Administration's degree, (MBA) on "the effectiveness of the operation function on the financial institution management in Egypt". The work experience tripe was long and hard, yet interesting and passionate. This paper and the research behind it, came because of the exceptional support of my supervisor, Dr. Basma Naguib. Her enthusiasm, knowledge and exacting attention to detail have been an inspiration and kept my work on track from my first encounter with the log literature reviews to the final draft of this paper. In addition, she provided me with her generosity and expertise have improved this study in innumerable ways and saved me from many errors. It is an honor to have you as my supervisors and mentors. Special Thanks to all REDEC Qena Financial Institution team members who took the time to complete my questionnaire and who contributed so thoroughly through their further comments. Especial thanks to REDEC Qena Boards of directors, the chairperson, and the executive Director. All of them have also looked over my transcriptions and answered with unfailing patience numerous questions about the questions related to this research. Special thanks to Dr. Mohamed Azzab the Statistics senior expert who assist me in the statistical analysis stage of this research. Thanks for CEO Business School for This professional support to accomplish the DBA degree. I would like here to acknowledge and appreciate the role of my family. My loving mother who raised me and founded all the good deeds and precious values in me. To the soul of My insisting visionary father who pushed me towards the target and never gave up since my 1st graduation in 1987. To all my wife, my daughter and my sons who encouraged me in all ways. My sisters, who supported me, A sincere thank you to every one of my friends, family, colleagues, and CEO Business School professors who participated in coming out with this study, and may it be useful for further similar studies. Thanks for all.

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Abstract

This research study deals with the impact of implementing the electronic payment services in the employee's performance of the microfinance institution. The study target's case study from the microfinance institutions in Egypt, as a topic for research. The researcher aims to prove that there is a direct or indirect relationship between the implementation of the electronic payment services in the financial institutions, and the performance of employees of these institutions. The proposed model describes the study of the relationship between adopting the electronic payment services provided by the microfinance institutions (in terms of: accessibility, safety, and degree of acceptance) and the performance of the employees of the microfinance institutions (in terms of: turnover rate - employees' satisfaction with the adopting the electronic payment services as well as staff knowledge and development needed in relation to adopting the electronic payment services) as a variables in the relationship.

The results of the statistical analysis of the collected data prove that the electronic payment services that were employed in the finance institution as a variable in the relationship contribute positively to reducing the resignation rate and increasing the satisfaction of workers in the microfinance institutions. Most of the studies that dealt with the same topic discussed it from a personal and qualitative point of view. Several studies in the literature measured the impact of implementing the electronic payment services on the performance of employees of the microfinance institutions. From this point of view, the study is a contribution to emphasizing the importance of expanding the employment of digitizing financial and non-financial services provided by the microfinance institutions, as it has positive effects on managing workers in these institutions, especially with the spread of the Covid-19 pandemic and facilitating access to customers who are targeted by this type of financial and non-financial services.

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Introduction

In an era where the digital transformation in microfinance has become an urgent demand from all its actors, this is represented by the digital revolution that is taking place to bring about a radical transformation in the financial institutions. Although there are challenges and risks, this necessary transformation of the microfinance sector. The digitization of microfinance is essential to the survival of the microfinance industry. At least three main benefits to digitization - it allows the microfinance institutions to increase revenues and reduce expenses. The digital transformation of the microfinance institutions could add over 45% to their annual revenue: 15% (Mckinsey-Microsave) and 30% from lower operating costs without compromising the jobs of those working in the microfinance industry. It reduces the annual expenses of serving the customer by 80%, and an 18% reduction in the expenses-to-income ratio (IFC-International Finance Corporation). in addition to the digital transformation and the addition of the electronic payment services to the financial institution will bring the opportunity to benefit from banking relationships. Smaller banks and banks have significant competitive advantages over financial technology. Financial institutions have a relationships with millions of clients. Financial institutions have data on the financial behavior of those clients. Traditional microfinance institutions have approvals and compliance from the regulatory to deliver financial services—something that fintech companies often lack and that allows the microfinance institutions to provide an important experience with their clients. Traditional microfinance institutions should be aware of the changing in the demographic and cultural context. Great user experience includes solutions that adapt to customer behaviors and attitudes. Risks and Challenges of Digital Transformation for the microfinance institutions: It is critical for the financial institution to assess its needs and how the technology can respond to this needs. Then there are risks that was linked to the digital transformation. The most important of which are the risks of the transformation process as well as the complete digitization of the financing services without maintaining some human concerns. In this research, the relationship of the application of the electronic payment services and the impact of this implementation on the employee's performance of the finance institution will be studied.

This study aims to elaborate the relationship between the implementation of the electronic payment services and the staff performance of the microfinance institution with applicable implementation on one of the microfinance institutions case study in Egypt.

This study will elaborate separately the electronic payment services, by review the literatures of its definition and historical background, the important of the electronic payment services, and, challenges and constraints. In addition, the study will review the electronic payment ecosystem services modules. This study will review the definition, theories, methods and modules of performance appraisal focusing on the microfinance institutions. In addition, this study will review the definition, benefits of microfinance and the nature of the microfinance institution. In Addition, this study will review the microfinance institutions status in Egypt with focusing on the case study REDEC Qena microfinance institution. The research will study the effectiveness of the electronic payment services on the employee's performance of the microfinance institution by reviewing the opportunities of the microfinance digitalization of their services, the expected risk and challenges in the digitalization of the microfinance institution and present some countries sample modules that adopting the electronic payment services.

The study highlighted the research problem in identifying the effectiveness of the adopting the electronic payment services on the Employee's performance of the microfinance institutions.

The research was designed as Null hypotheses by interviewing sample employees from the case study REDEC Qena microfinance institution to analyze the main factors that affect the independent variable factors (implementing the electronic payment services in the microfinance institution: Acceptability, Accessibility and Security factors). And the dependent variable factors (the employee's performance of the microfinance institution: The Employee's turnover, the employee's satisfaction and the employee's knowledge and skills development).

The m result of the study concluded that there is a good relationship between the implementation of the electronic payment services and the enhancement of the employee's performance of the microfinance inanition. The research results gave more evidence on the important of the electronic payment service role to improve the employee's work environment of the microfinance institution to achieve their institution's objectives efficiency and effectively.

Research importance:

The research will benefit several microfinance institution employees' groups among them managers of the selected REDEC Qena microfinance institution case study in Egypt, who will use the research to have an insight of the benefits of electronic payment services and what it entails. This will in turn help them decide whether to use electronic payment services as a competitive tool to increase new avenues for microfinance institution operations, branch network and profitability without investing in brick and mortar. Using the research results to emphasize the importance of electronic payment services in the best practices of Egyptian financial institutions

Chapter One:

Electronic payment Service

Chapter One: Electronic payment Service

Chapter Preface

This chapter describes the identification of the electronic payment services. This include the definition of the electronic payment, the historical of the electronic payment and the historical background of types of electronic payment services. This chapter will highlight the important of the electronic payment services, what are the main challenges and contracts that facing the implementation of the electronic payment services? This chapter too will elaborate the ecosystem modules of the electronic payment services.

There is lot of theories of the electronic payment services relationship with the customers as follow:

To discover consumer payment behaviors, Truman et al. (2003) and Rysman (2007) used proprietary consumer data. Ching and Hayashi (2010) and Bolt et al. (2010) Data related to charging fees for digital payment services and reward programs and their impact on consumers' behavior towards their preference for the payment method. Consumers' perceptions were also considered as a strong factor in determining the diffusion rate of electronic payment instruments by **Tan and Chen (2008) and Kim et al. (2010).** In addition, few studies have investigated merchants' characteristics, coupled with their behavior with, preferences for, and perceptions of electronic payment implementation. A few identified studies focus only on merchants' payment behavior in general **(e.g., Truman et al. 2003; Rysman 2007;** He et al. **2008).** Many studies examine the payment characteristics and attributes that were specific to certain types of payment instruments such as credit cards, Electronic cash, cheque, and micropayment and link them to consumers' implementation of such payment methods (e.g., Yu et al. 2002; Baddeley 2004; Borzekowski & Kiser 2008; Tan & Chen 2008; Schuh & Stavins 2010). Rysman (2007) explored the factors that drive consumers to use electronic payment cards by establishing a relationship between consumer use of cards and merchant acceptance of payment. Rysman (2007) concluded that consumers were concentrating their spending on single use of the electronic payment network while they had cards that allowed for multiple use of electronic payment networks.

In understanding the dynamics that influence the changes in business model for micro-payment systems **in Taiwan, Tan and Chen (2008)** analyze the factors that affecting the success of the

bank-issued micropayment system in the country. The following are the findings of the usable survey responses: (1) the security reasons and the transaction expenses were affected on the benefits of the e-micropayment programme. (2) Network affected the consumer's satisfaction and willingness to continue using the electronic micropayment programme. (3) the opposite of the supply side, is the demand side of network externality did not significantly influence the perceived usefulness of the bank-issued programme or the perception of convenience. With the innovation diffusion theory.

Kim et al. (2010) describes the determinants and effects of the perspective security factor for the consumers and their trust in using Electronic payment services. With 291 usable responses, they conclude that: (1) Both technical protections and security statements were significant factors for improving consumers' perceived security, (2) Consumers' perceived security was positively related to consumers' perceived trust and Electronic payment services usage, and (3) Consumers' perceived trust had a good impact on their Electronic payment services' usage.

Definition of Electronic Payment:

Definition of electronic Payment had been changes from theories to another. (**Kaur & Pathak, 2015),** defined the electronic payment as payment made in the form of money exchange through the electronic ways. This relationship came in another definition as the electronic payment is an electronic means doing the payments for services and products online or in supermarkets and shopping malls (**Adeoti and Osotimehin, 2012**), unfortunately this is not the limitation of electronic payment globally. In another meaning the electronic payment services is a form of financial commitment that involves the buyer and the seller through the electronic communication (**Dennis 2004,**). At the end the electronic payment services is a financial deeds exchange between buyers and sellers through the online means (**William, 1997**). Another definition included the paperwork in electronic payment seervices as any transfer of an electronic value of technology aspect, economic aspect, social aspect and industrial and law aspects (**Teoh, Chong, Lin, and Chua, 2013,**). In addition electronic payment services, is type of non-cash payments without needs to paper cheque (**Hord, 2005**). Another definition highlights the channel of money transfer as payment is system of any form fund transfer via the internet (**Peter and Babatunde, 2012**,) but the future of electronic payment technology could be offline without need to the internet channel.

Electronic payment in some theories definition is like credit and debit payments, (**Agimo, 2004,**). So, it is payments made through an automated clearing house, commercial cards services and electronic transfers (**Lin and Nguyen, 2001**).

The character of the electronic cash, it is like true cash, and it is anonymous and reusable. The new Electronic Money Institutions European Directive defined the electronic payment as a monetary value which is: kept on an electronic device. Issued on receipt of an amount not less in value than the monetary value issued. And accepted as method of payment by undertakings other than the issuer."
The definition is wide ranging and attempts to be technology neutral.

Mainly the electronic money is very much like physical money for all practical purposes.

- It is anonymous.
- It is given value by a financial institution; and
- It must be subject to be used to pay for services or products in any sort of transaction.

electronic payments parties' relationship: the money payer must accept it and provide the equivalent of the monetary value back to the bearer. The electronic payment services must be accepted by the merchants other than the payers, which means that it must have majority acceptance.

Cash and Cashless Difference in electronic payment: The main difference with physical money is that it must be stored in an electronic medium, but the definition does not specify what type.
Channels and Tools of electronic payment It must be assumed that this means cards, PDAs, mobile phones, personal computers and any other electronic devices.

Charges and Fees of using the electronic payment: The value stored in an electronic money device must not be any less than the monetary value issued, which means that there must not be any charges for usage, such as interest rates or usage charges in traditional credit cards. This also assumes that the value of the purchase should not be superior to the amount specified in the money, if it was then it should be considered a credit device, and thus subject of an entirely different regulatory system.

The requirements for any payment system to be considered as an electronic payment are all there.

A) The electronic cash must have monetary value, the reward points from shopping will not apply to this definition.

B) These Electronic payment services created a proprietary currency useable only in involving merchants.

C) There is a presents of "claim on the issuer

Historical of the Electronic Payment:

Digi-Cash or Electronic cash expression in Electronic Payments.

The electronic payment process began in 1918, at which time the US Federal Reserve Bank assisted the telegraph in transporting currency in the United States of America. From that date until 1972, digital payments were not widely used until the ACH was incorporated. Since 1972, electronic payment and electronic currency have become widespread in America on a large scale. In addition to allowing US commercial banks to widely use digital financial payments as an alternative to payment by paper checks (Graham 2003) The use of credit cards began in 1914 through the issuance of some bodies, such as oil companies, Western Union and some hotels, to accept credit card payments. After 40 years, credit cards are becoming increasingly popular, used and more acceptable among consumers. In the beginning, credit cards were not fully electronic payment (which is paper payments) until the nineties came, when the use of credit cards became a complete electronic payment. Due to the increase in the use of credit cards, direct debit cards have also been added as another method of electronic payment.

The expression of Digi-Cash came by David Chaum (Dutch/Us Company, in 1992). The expression Electronic cash came to identify the electronic equivalent of Cash, Developed by Digi-Cash. in addition, the Electronic cash is fully anonymous using cryptographic techniques. In 1995, Mark Twain Bank, Missouri, USA, started to deliver a real electronic cash dollar coins. In 1998 it was happened the Digi-Cash bankruptcy. Then they started to re-launch the Digi-Cash as Electronic cash technologies. In 2002, Info Space acquired on the Electronic cash technologies. The world payments system is gradually changing from paper-based money to the electronic payment forms. It provides more convenient, fast, and secured process among individual and organizations (Premchand & Choudhry, 2015).

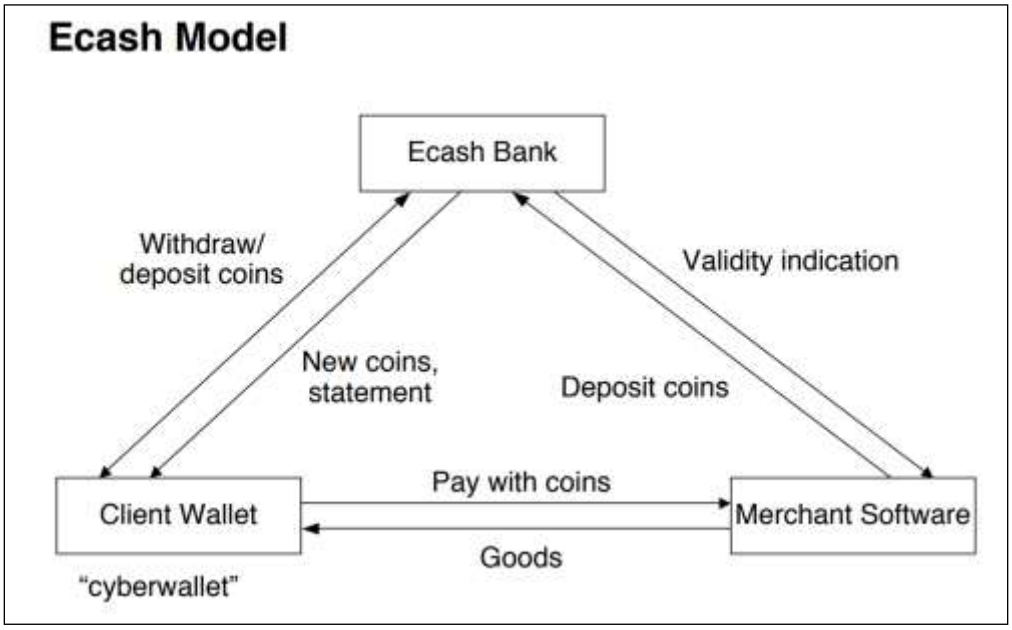


Figure 1- Electronic cash Model

ICT-Information and Communication technology is the main change of the lives of individual citizens and institutions. ICT contributed effectively to achieve an effective evolution in all aspects of finance, economics, operational costs (Slozko & Pello, 2015), the electronic payment is effectively contributed to enhance the institution's performance (Ali, 2010). The electronic payment came from the era of ICT and Digital innovations that came at the time of *the dynamic changes in the world business environment*. Business transactions had been shifted from cash to non-cash and electronic based payments and transactions. (Mohamad, Haroon, & Najiran, 2009). The global expansion of internet services and the rapid using of the internet had contributed to facilitate the electronic commerce deeds in the world business environment (Fernandes, 2013). Most institutions shifted from the paper-based money payments to the electronic payment system. Subsequently, the world payment system turned out to the current trend of electronic and cashless transactions among individuals, businesses, and governments (Odi & Richard, 2013).

To support e-commerce, a variety of industrial Electronic payment services and solutions have been developed and deployed in many countries. Visa Cash is the first Electronic payment services and solution. The reason for selecting Visa Cash is that it is a global brand. Visa Cash can be used

either in the real world or in cyberspace over the Internet. Since its launch in 1995, Visa Cash has been widely used worldwide, including Argentina, Australia, Brazil, Canada, Columbia, Hong Kong, Ireland, Japan, Mexico, Norway, Puerto Rico, Russia, Spain, Taiwan, the UK, and the US.

Historical background of type of Electronic Payments services:

ATM and its Benefits

Studies show that the technological revolution came to surface the banking sector in the 1950s with the implementation of the automated bookkeeping machines at banks and the history of ATM dates back to the 1960s, the time at which John Shepherd-Barron invented the first ATM. Barclays bank implemented the machine for the first time in the banking sector in 1967, Wikimedia E-encyclopedia cited in Kumbhar (2011). The first ATM, which has been implemented in US in 1968, came out with only a cash dispenser (Zaman and Chowdhury, 2012). ATM is " An electronic method that allows bank customers to make cash withdrawals and review their balance at any time available to them without the need to deal with human teller" (Islam et al., 2005:3). They state that ATM is an innovation, which can accept deposits, transfer funds between accounts and collect receipts. In addition, ATM is defined as "an automatic teller machine which is used to save the cost and reach-ability of a bank; by satisfying customer needs" (Vasumathi and Dhanavanthan, 2010:469).

Point-of-Sale (POS) Transfer Terminals**:** This type of electronic system allows consumers to purchase against payment for a new type of debit card. It could be considered a credit card but with a big difference. Where the consumer's purchase amounts are transferred from his debit card to the account of the merchant who buys from him. (Malak 2007).

Internet and Extranet Banking

Internet banking, it is a banking system managed by the customer, using the web portal of the bank, through which the consumer can conduct his banking transactions through the consumer's computers. Alabar & Timothy (2012) cited in Sintayehu, (2015) Internet banking is conducted by completing bank transactions by directly accessing the bank through the internet. Nowadays, internet-banking customers can access many different services online, which make physical banks open even after office hours. The financial institutions operate their own websites over the internet.

It is allowing their customers to conduct their financial transactions through the customers' use of their own methods of online communication (personal computer or smart phone).

Mobile Banking

Mobile banking is a service that enables customers to conduct some banking services such as account inquiry and funds transfer, payment to others beneficiary by using of short text message (SMS). Tiwari & Buse, (2007) cited in Sintayehu, (2015) Mobile banking (also known as M-Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA).

Current and Future of Non-Cash Payments globally:

The world non-cash transactions volume growth to 7.8% in 2020 reaching 758 billion transactions. (World payment Report 2020). As per the world non-cash transactions growth to 18.6% in the Compound Annual Growth rate (2020-2025) and volumes to reach 1.8 trillion by end of the period. increasing use of the next-generation payment methods – BNPL-Buy now, Pay Later Invisible, Biometric, and cryptocurrency will play a pivotal role in driving the growth in electronic payment. (World Payment Report).

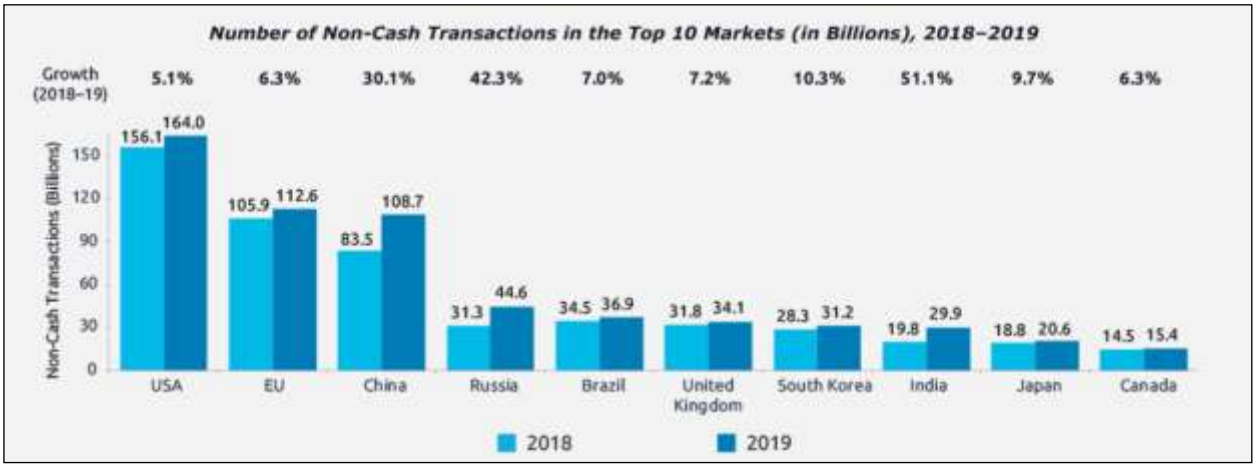


Figure 2- Number of non-cash transaction in top markets

Source: Countries Central Banks Payment Reports.

	Compound Annual Growth Rate (2016-2020)	Growth (2019-2020)
Global	12.7%	7.8%
Middle East & Africa	11.6%	7.8%
Latin America	8.7%	3.0%
North America	5.1%	2.0%
Europe	9.6%	3.3%
Asia-Pacific	23.8%	16.6%

Sources: Capgemini Financial Services Analysis, 2021, countries central bank annual reports.

Important of Electronic Payments

There are some theories rerated to the important of using of the Technology and the electronic Payment Systems in both the banking and Noon Banking Institutions **Davis (1989) cited in Ogotielijah Sokobe, (2015)** defined ease of use of technology as It is the belief of any person that using the electronic cash payment process will not cost him any effort. Lee (2009) defined the use in business and fewer complexes to increase the like hood of its implementation. These definitions agree on the degree of free of effort. However, these ignore usage as constraints to the performers, which are useful ingredient of usage **(Stuart, 2011).** The belief from the customers of the banks is the electronic banking repair the way for managing customers business in better ways. **(Taghavifard et al, (2010).** In addition, the electronic banking enables banks to offer lower price of transactions and offer 24-hour electronic payment services and increases efficiency in the daily banking processes. **Mihalciuc, et.al., (2008)** confirm that e-banking can improve the bank's efficiency and competitiveness, which affect positively the customers as the electronic banking provides flexibility to customers, which enables banks to target new customers. **Olanipekun et al. (2013)** investigated the effectiveness of electronic banking on bank's employee's performance. The study resulted, the electronic banking has good effect on the bank's employee's performance, especially in improving both efficiency and effectiveness of service delivery and at the same time in augmenting customers' satisfaction. **Hitt and Brynjolfsson (2009)** implementation of the technology in banking sector has an effect on the work of employees of the banks' employees. The electronic banking has brought organizational structural changes to the way work is conducted. This, in turn, affects the type of skills and knowledge required to perform these new using technology in banking tasks.

VS Rama Rao (2010) the introduction of the electronic banking technology relates to the training for banks' employees to perform tasks. The same (Chi et al., 1989), the employees of the bank can gain new knowledge and learn through training. Training in electronic banking assists employees to carry out their daily activities properly. **Akilandeswari and Jayalakshmi (2014)** training and development are a continuous process to build the capacities of the banks' staff. This will allow them to cope with the urgent changes in the electronic banking technological. In addition, the introduction of electronic banking technology negatively affects the job security for employees of the banks.

Norton et al (1995) emphasize that ATM machines can effectively replace traditional payment and collection methods (using the human factor), where traditional methods have been dispensed with and self-service banking (SSB) has been replaced to reduce costs and increase efficiency.
Also, Jannatul (2010), discovered that the expansion use of the electronic banking will decrease the expected dependencies of banks on traditional ways, and it leads to job insecurity for employees.

In Nigeria Banks, Atiku et al (2011) studied the effects of the electronic banking on employees' job security. The results obtained that the using ATMs and other payment systems affect the employees' job stability.
Another study by Shirzadi, et.al, (2017) ended up with the implementation of electronic payment transferring services, telephone bank and electronic banking services affects the staff job stability and decreases job security.

Salomer, 2004 opined that information technology which gives rise to the Electronic payment services can bring down the operational expenses of the bank as information technology speed up the bank procedure to low value-added transaction such as bill payment and balance inquiries process through the online network. The important of the Electronic payment were sorted as many customers as possible with electronic and computerized accounting system more *importantly its ability to produce and present relevant financial reports to end users*. The *electronic payment services is necessary to identifying, analyzing, assessing, treating, monitoring, and communicating of Institution*. (Ken (2013). One of the major benefits from the Electronic payments services to the institutions is to reduce the employee's workload and errors rate. The Electronic payments services could be successfully used a competitive advantage product to the microfinance institution in the market under condition that employees and customers will accept and support the utilization of the Electronic payment's services. The electronic payments services are reducing the abused funds by reducing 'the invisible' payments, support the compliance with applicable accounting laws, reducing errors in calculating changes from transactions, reducing fraud financial risks in the financial reporting and increasing the transparency in transactions. Electronic payment services also used to reduce and avoid the risk of external criminal activities such as stealing, terrorism, or vandalism. The electronic payment services also used to reduce the individual risks from single person (dependency and liquidity risk).

Some studies pointed out some advantage and disadvantages in using the electronic payment Services as follow:

Electronic payment advantages

Consumer convenience: Electronic money could prove very convenient for consumers. Because it involves advanced charge of money from the customer's bank account, almost anybody can be accessed with a smart card, as there is no risk to the payee. It is useful to the customers to have this smart cards without carrying cash to do a small transactions.

*Increased consumer confidence***:** Smart cards holds the money of the payee who will need it. The payee consumers will use this amount of money on their smart cards to purchase their stuff from the internet by using the online payment. This online financial deeds should be supported with to protect the customers information on their credit cards from misusing form somebody else. In addition, the smart cards users should be protected, and their cards should be issued with a built-in blocked code. This code will allow the customers to block the cash on a card and making sure in case their cards got lost or stolen from any other person, they will not be able to use the money in their cards.

Payer customers anonymity: as the payment process in cash is anonymous, it will be is easy to be anonymous to in the electronic payments.

The advantage of the electronic payment providers: the electronic payment services is cheaper than any other payment systems. It is great advantage for the provider financial institution. The responsibility of the electronic payment provider is so low, and for that reason they can get easy high profit and low expenses.

Electronic payment Disadvantages.

Consumer misunderstanding: At the time of having an active and competed electronic payment services to the customers, there is a possibility from the customers to misunderstand and misusing of the electronic payment system and at the end it becomes so complicated for the customers. One of the main problems with too many schemes would be that the customer may will not able to use the card everywhere, which is what would be expected of a system that is meant to replace physical currency.

Regulatory maze: the regulation for the electronic payments is still not clear in some critical points of implementing the electronic payment. It must be covered by the regulators before the electronic payment services is made available to the customers.

Security: The security of utilizing the electronic payment services is the mind of all players wo will implement of electronic payment. As it is happened with the physical cash, widespread counterfeiting of electronic currency could have huge implications for the economy. Security will receive a more detailed treatment in alter section.

From the above empirical review at international level most of studies were emphasized on countries with large number of electronic payment users and the commercial banks, which provide better alternative electronic payments services in their countries. In general, review of empirical studies shows that understanding the factors, opportunities and challenges in Electronic payments services are important for banking industries due to it would potentially help them in improving their strategic planning process.

Electronic payment services Challenges and constraints:

- Electronic payment service is facing a security concern as result of insufficient set of procedures, mechanisms, and computer programs to authenticate the source of information and guarantee the integrity and privacy of the electronic information in the implementation of electronic payment systems.

- The microfinance institution is faced by infrastructural challenges as results of lack of well-established infrastructure for acceptance of Electronic payments services that are accessible, safe and easily operable by their customers. That will lead to financial and performance problems in its performance

- Lack of sufficient laws, rules, regulations, and management policies for successful implementation of electronic payment services at the microfinance institution.

- Provide continuous training and attitudinal changes to the microfinance institution to enhance the implementation of electronic payment services.

- There is relationship between the volume of turnover and the need for enhanced staff capabilities.

Electronic payment services ecosystem Modules

The Electronic Payment Systems helps consumers pay for services and goods using fast and secure electronic systems. The main goal of electronic payment services is speed, efficiency, security, consumer convenience and ease of use at any time convenient for the consumer. The Electronic payment services are developing day after day to contribute to helping Electronic Payment Systems implementation:

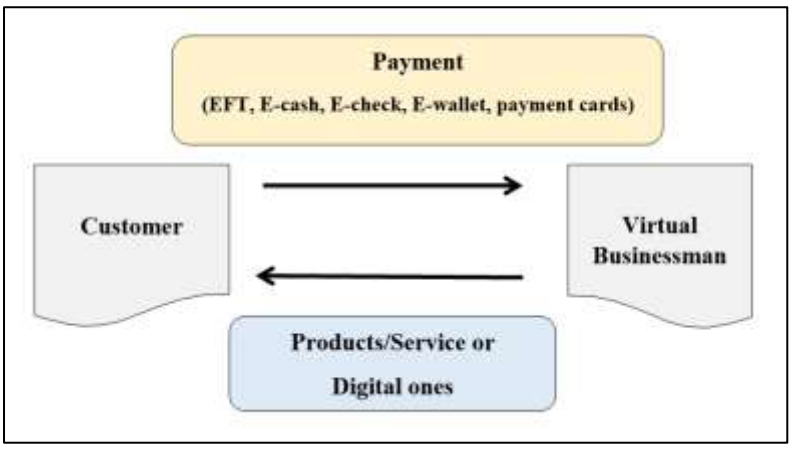


Figure 3- Electronic Payment serv ices ecosystem modules

The online buyers may use one of the following Electronic Payment Services to pay for products/services purchased online:

- *Electronic funds transfer (EFT):* EFT involves electronic transfer of money by financial institutions.
- *Payment cards:* It is contained available stored financial value that can be reserved at any time to be transferred from the customer's devise to the businessman's devices.
- *Credit cards:* The most popular method used in the Electronic Payment Services, and it used by charging against the customer credit.
- *Smart cards:* It is including the reserved financial value and other important personal and financial information used to be paid through the online payments.
- Electronic money (electronic money or electronic cash*):* It is standard money to be converted into an electronic format to pay for online commercial purchases.

- *Online payment:* It can be used for regular payments for utilization of the Internet, phone bills, etc.
- *Electronic wallets (e-wallets):* It is like the smart cards as it is including the reserved financial value for the purpose of online payments.
- *Micro-payment systems:* It is like the electronic wallets, it is including the reserved financial value for the online payments; beside that, it is used for the small payments.
- These different types of electronic payment methods may seem different and separate, but there is some overlap between them. This means that there is duplication in some electronic payment methods, such as the electronic wallet paying online and acting as a payment card when using consumer credit card information or an electronic money card when using the card. Reserve it for electronic payment at any time.

The Electronic payments services ecosystem involves four main players. that are all working together to achieve the financial payments objectives and the stability and integrity of the national financial systems. Explained that the four main players of the Electronic payment services ecosystem are market users, market services providers, ITCs infrastructures, and government:

1. ***Market users***: Include all kind of users like individual clients, private sector, Businessmen, Official authorities, and NGOs. All of them have an important need to include the electronic payment systems in their daily financial deeds.
2. ***Market services providers***: Include all kind of electronic payment services providers like banks, other licensed microfinance institution, and non-banks (i.e., Fintech companies) who supply those products and services through digital means.
3. ***ITCs infrastructures***: All the needed ITCs infrastructures (financial, technical, and other infrastructures) that make the provision of electronic payment services faster, easier, cheaper, and secure of any fraud or cybercrimes.
4. **Government:** Includes governmental policies, laws and regulations which set up the rules of the play in the market to ensure that electronic payment services are provided in an inclusive, accessible, affordable, and safe manner.

Table 1– The main electronic payments services player and their modules

Modules	**Electronic payments services Main Players**			
	A. Market Users	**B.** Market Service Providers	**C.** ITCs Infrastructure	**C**. Government
	Consumers Microbusiness Governmental Agencies NGOs	Electronic payment services Providers microfinance institutions, Banks FinTech Firms	ITCs Infrastructure Financial Technical other infrastructure (Faster, Easier, and cheaper, secure	Policies, Laws, Regulations
Module 2	✔	✔	✔	✔
Module 3	✔	✔	✔	X
Module 1	✔	✔	X	X

By Electronic payments services players there are lot of modules between the main players of the Electronic payment's services.

From the table and based on the main players in the Electronic payment's Electronic payments services relationship; there is different type of Electronic payment services module:

Module One (Macro level): Direct relationship between the Market users/Customers, the Electronic payments services providers the financial institutions, the fintech providers and the government. This relationship is focusing on the policies, laws and regulation. It needs to be implemented to support the strategic goal of the country.

Module Two (Meso Level): Direct relationship between the Market User and the Microfinance Initiations through Fintech firms to provide Electronic payment services in appropriate ITCs infrastructure. This relationship is followed in the credit relationship between the customers and Microfine initiations.

Module Three (Micro Level): Direct relationship between the Market users/Customers and the Electronic payments services providers only. This relationship is going in the daily financial deeds from the customers. EG: paying online goods, transfer any payments to another person's/firm.
The research will focus on the Micro level module to find out the implementation of the Electronic payments' services by the Microfinance customers and the employees' performance of the Microfine institution.

Conclusion:

Electronic payments services definition will be any cash payments and transfer made from payers to payees by electronic payment method in the shape of money exchange through Electronic payment services and channel that supported by internet facility. channels include the internet, mobile phones, ATMs, point-of-sale terminals, electronically enabled cards, and biometric devices. Customers financial payments should link with deposit or credit accounts. Electronic payments services will allow customers to reduce time used to pay non-cash payment and on time transfer their due payment and financial commitments.

No doubt that the Electronic payments services is the future of the individuals and their daily financial deeds, payments, purchases and needs. The more using of the Electronic payment's services in the daily banking and non-banking operation, the more profit and resource saving of the microfinance institutions, the key players, providers and employees will be the main catalyst of increasing or decreasing the Electronic payment services using and institution profit increasing or decreasing at the end.

Microfinance Institution Employees are playing a great role to promote and support the institution's customers to utilize the Electronic payment services under a condition of enhancing the capacities of the employees themselves on Electronic payments services concept and Digital Financial Literacy knowledge and skills.

Chapter Two:

Employment Performance

Chapter Two: Employment Performance

Chapter Preface

This chapter describes the background of the employee's performance. In addition, this chapter will review the literatures in define the employees' performances and the theories of the staff performance. This chapter will highlight the description and relationship between the productivity, efficiency, and effectiveness in the employee performance. This chapter will discuss the important of the performance appraisal that will ended up identifying the main steps of the performance appraisal. In addition, this chapter will present several modules of measuring the employee's performance that will lead to identifying the appropriate modules of measuring the employee's performance of the microfinance institution.

Historical Background of Employee performance

The beginning of institutionalizing the performance appraisal as started to measure the Institution's efficiency (Fendray, 2001). Wren (1994) Explain that performance appraisal of employees has begun (Robert Owen,1800). He used colored wooden blocks to evaluate the performance of workers in a cotton mill in Scotland at the end of each working day. There have been many evaluation methods in the past, some of them used the performance appraisal as a tool to punish poor performance (Kennedy & Dresser 2001). But it left a negative impression on both the appraisal process and the employee being evaluated. In the beginning, the performance appraisal process between the managers and the employees is a monotonous and ridiculous annual process that raises fear among them, Robert and Pregitzer (2007), which sums up the dissatisfaction of the managers and staff with the performance appraisal process itself. To remove the severity of the performance evaluation process between the appraiser and the evaluated employee, the organizations linked the evaluation process to rewards, promotions, and future training for employees, where the focus was not on measuring the successes of the evaluated employees only, but rather the performance evaluation process must be linked to how it is managed after the performance evaluation process. (Kennedy & Dresser 2001

Definitions of Employees Performance:

Performance appraisal has been defined by different scholars in various ways. The following is some important definitions of the employee's performance:

(Dale S. Beach); defined the employees performance appraisal as it is like systematic evaluation of *(jobs and Development)* for the individual employees, with respect to his/her performance on his/her job and potential for development. (Randall S. Schuler,) defined employee performance appraisal as a formally organized system that is developed to measure and evaluate job tasks, work behaviors and their results for the employee. This is with the aim of discovering what the employee is doing at the present time (measurement time) and how the employee is performing effectively in the future so that he can achieve his goals at work and the goals of the organization**. In addition, (**Heyel,**) defined** the process of evaluating job performance and the extent to which it is related to the requirements of the job in which the employee works, including promotion, financial rewards and other preferential factors, and the equal impact of these procedures on the rest of the work team members of the same workers being evaluated. The process of performance appraisal of the employees is a continuous process and not a momentary process, as it is useful in supporting mangers and decision makers with the necessary information about the performance of the work team of employees, individually and collectively. The process the performance appraisal of employees contains all the official procedures used to evaluate employees individually and determine the extent of their contributions and their abilities at the appraisal time to achieve the goals of the organization. In the book "Strategic performance management" the author defined Performance appraisal as *"a systematic & holistic process of work, planning, monitoring and measurement aimed at continuously improving the teams and individual employee's contribution to achievement of organizational goals"* (Akata, 2003).

Based on the opinion of Bassey, Esu and Inyang (2009), the employee performance appraisal system is a method in which all the successes and achievements of the employee are monitored during a specific period of time, during which the employee contributed to achieving the goals of the organization. Hence, the employee performance appraisal system is a special method for exchanging information between employees and their superiors in order to measure the employee's progress in his work in an effective and appropriate manner, and then the performance evaluation process ends with making strategic management decisions related to the optimal use of human

resources. Whereas Atiomo (2000) agrees with Fajana (1997) focused on the performance appraisal process as a method of evaluating employees' skills and identifying and reviewing areas for improvement in their performance. Both focus (Fajana 1997; Atiomo, 2000; Obisi 2010). Atiomo (2000) On the effectiveness of performance evaluation, where they made it clear that in order to evaluate performance effectively, there must be an accurate job description for each employee whose performance is evaluated, and then each employee needs to know his role in detail in the work of the organization. In the end, it can be summarized that the performance appraisal process for employees is nothing but a process by which the organization collects and analyzes data on the strengths and weaknesses of its employees in order to explore the opportunities and potentials of employees and the areas of investment, development and growth in them with knowledge of future threats and challenges that could be harmful to his career Professionalism with the importance of informing the employee later of the evaluation result. As for the performance appraisal process for the employee - it aims to help employees understand their strengths and shortcomings and give them the financial compensation related to the performance appraisal process that took place for them" (Dale Yoder,)

Employee Performance*:* the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it; A performance comprises an event in which generally one group of people (the performer or performers) behave in a particular way for another group of people.

In Uganda financial institutions, the employee performance management is a sustainable process of the organizations to ensure their employees are contributing to producing a high-quality product or service. Mangers are encouraging the employees to get involved in the planning for the institution, and therefore the employee will be motivated to perform at a high level (Kreisman,2002). There is a close relationship between employee incentives policy and employee performance evaluation in financial institutions - financing institutions flourish and grow thanks to the good performance of their employees, and at the same time employees in financial institutions maintain their stay in them if these institutions provide periodic benefits and incentives linked to the evaluation of their performance Martin Holtmann (2002)

Conclusion

There is a several numbers of definition of the Employee performance appraisal – it Formal and Systematic Evaluation process for individual (Not group) employees, doing in respectable approach, and periodical (Semi-annual or annual) to measure the staff behavior, achievements, and outcomes. The end result of the staff performance appraisal will focus on: identify their areas to be developed, promoting, awarding, making the correct actions and decisions in the future of Employees to achieving the organization goals and objectives.

Theories of Performance Appraisal

Scientific Management Theory:

Frederick Taylor (Taylor.F) is the most prominent representatives of this theory. He noticed that workers produce less than their production capacity. He found there is no single and specific standard for production and the expected daily output of workers, and there is *no clear and consistent relationship between wages and production*. This theory recommended On *the necessity of scientific selection of workers and the necessity of training them on the most appropriate way to perform work. This theory adopted the scientific standard based on the study of time and motion*.

The theory of administrative division:

One of its most prominent pioneers is **Henry Fayol (Fayol. H).** This theory focuses on *highlighting the formal organizational structure as a whole divided into departments and sections that carry out specialized activities in order to achieve increased production efficiency and reduce costs.* It also highlights the structure of the administrative hierarchy where authority flows from top to bottom and result of the delegation process and the world has built Fayol formulated fourteen principles of management in order to ensure improved performance.

Bureaucratic Theory:

This theory is attributed to the German sociologist **Max Weber,** where his theory of power structures is the most important studies he contributed. issued to them? *And why do working individuals perform work according to the instructions that flow to them within the limits of this strict orders and that the bureaucratic model is not concerned with increasing productivity as much as it is concerned with the formal aspects that govern individuals'* relationships without

regard to behavioral aspects while neglecting the human aspect that modern theories have proven important in relation to the concept of productivity and performance improvement.

Human Relations Theory:

This theory is based on *paying attention to the human and social aspects* of the organization, and thus aims to reach the workers to the best production *in light of the best psychological and moral factors that can affect the individual as he is a human being emotionally and emotionally rather than rational and logical*. It was presented by **Curt Lewin (Lewin Kur),** through which he concluded *that the democratic leadership style* is the best method, and his study revealed the importance of participation in management and its impact on motivating subordinates to good performance.

The theory of justice:

Adams's theory of justice refers to the assumption, there is a common need among workers for the equitable distribution of incentives in the organization. Through this theory, the individual measures the degree of justice by comparing him to the ratio of the efforts he exerts in his work to the rewards and incentives he obtains with that ratio of his likes of workers. At the same level and in the same circumstances, *this theory is evident the leadership style and job performance when the employees feel that the organization's rewards* such as salary, respect, appreciation and participation are distributed equally among them according to their merit and the degree of entitlement of each one of them

Expectation Theory:

This theory was developed by the scientist **Victor Fromm (vroom)**, and *this theory talks about that the worker's motivation to do any work is his expectation of the return that can be obtained result of this work*. **Fromm** raised performance through his theory through training, supervision, and participation in decision-making regarding work. He also contributed to develop the reward systems for outstanding performance.

Japanese Theory of Management:

It is a theory of the scientist **(OUCHI),** where he carried out several studies to research the secret of the success of the Japanese administration, and came to a theory he called **(Z) theory**, which is concerned with the human aspects of workers, as he *considered that the workers are the most important element in the institution, taking care of it and solving its social problems*, in addition to teamwork and unifying efforts Creating the spirit of the group achieves the greatest effectiveness in performance.

Productivity – Efficiency and Effectiveness in Employee performance.

Productivity implies both concern for effectiveness and efficiency, *effectiveness* refers to goal accomplishment. However, *it does not speak of the costs* incurred in reaching the goal. That is where efficiency comes in. *Efficiency evaluates the ratio of inputs consumed to outputs achieved*. The greater the output for a given input, the greater the efficiency.

In addition to the productivity as measured in terms of effectiveness and efficiency, Employee's performance also includes some personnel information such as: measures of staff accidents, staff turnover, staff absences, and staff tardiness. While the good employee is the one who not only performs good in his/her work in terms of productivity but also minimizes number of problems for the organization by fulfilling the work on time and not losing any working days.

Important of Employees Performance Appraisal

The importance of performance appraisal for employees is that it is used to determine specific future goals for employees. The performance appraisal process is used as a way to monitor the performance of employees in relation to the job description tasks associated with each employee. The process of evaluating the performance of the organization's employees is also used to measure the individual and collective performance of the employee with the work team, his role in this team, the size of his individual and collective achievements with the work team, based on the work tasks and the extent to which this is related to achieving the goals of the organization. Also, employee performance appraisal is used to know the extent of employee effectiveness and their contributions during work (Ikramullah et al, 2011). Fletcher (2001) explained that the process of evaluating the performance of employees can use its tools as a means to develop the efficiency of employees, motivate them, and equitably allocate the organization's resources. In 1989, Cleveland,

Murphy, and Williams, found If the performance appraisal process for employees is carried out professionally and correctly, it can be used to motivate employees through rewards, promotions and bonuses. Both employees and the organization have their own contributions and direct relationships that ultimately lead to the achievement of the organization's goal. Measuring the employee's performance and his success in identifying the individual goals of the employees and the extent to which these goals are related to the goals of the organization and the extent to which the individual performance of the employee and his success in the development and growth of the organization is the basis of the performance evaluation process and therefore the lack of an effective performance evaluation system will not contribute to the development and growth of the organization and its employees. Seidan, Sally and Jessica E. Sowa (2011) Human nature makes people tend to personal judgment on the work of employees in an informal and unfair manner without being guided by a good performance appraisal system, which ultimately leads to the existence of difficult administrative, organizational, and legal problems at work. Hence the importance of a good and renewable system for evaluating the performance of employees in the organization. The history of the performance evaluation process started since it was primarily aimed at evaluating the employee's income only from the organization and what are the reasons why the organization gives him the required income from the employee based on his performance in it. The increase or decrease of the employee's income from the organization depends on his performance in the organization and the extent of his superiors' judgment in the organization on him. This method succeeded in the first, but it failed a lot because the evaluation factor is only related to the goal of increasing or decreasing the employee's income from the organization.

Performance Appraisal Process:

1. **Establish Performance Standards:**

   In this step, it is requiring identifying the criteria to judge the employee's performance process as successful or unsuccessful and the degrees of his/her contributions to achieve the organizational goals and objectives. The criteria should be clear, easily understandable, and measurable

   Example from the microfinance institution: the growth in both size of the microfinance portfolio and the outstanding number of active customers per each employee, are the contributions of the employees to the organization goals

2. **Communicating the Standards**

   The transparency and accountability principles in the performance appraisal process and criteria should be clear for the employees at the beginning of the appraisal process. This will help employees to understand their roles to achieve the goals of the organization.

   In the Microfinance Financial Institution's example: Standard should be declared at the being of strategic operation year (EG: The best practice of standard for individual loan product the target of loan office is between 150-200 active customer).

3. **Measuring the actual performance**

   It is an on-going process which include monitoring the employee's performance throughout the year. In this process requires a very careful selection measurement techniques. In addition, the process should be in a special environment to avoid the personal bias and it is affected in the outcome of the process by providing support rather than interfering in the employee's work.

   In microfinance institution's example of measuring the actual performance are: ratio or active customers who not droop out from the lending process, ratio of repayment and defaulted loans, type of funding microbusinesses ..etc

4. **Comparing the Actual Performance with desired performance**

Experiments tested the comparison in the deviations of the employee's performance appraisal from the standard job achievement criteria. The results of the employee's performance appraisal should highlight the actual desired performance than the planned performance. Sometimes the actual performance is more than the planned performance, or the actual performance is less than the planned performance and it cause negative deviations in the performance of the organization.

In microfinance institutions the monthly tracking and monitoring of the planned and actual achieved for the employees (Especially the loan officers, Branch supervisors and managers)

In Microfinance institution's example the annual operation projected plans per each individual employee is reflecting: the institution's growth goal ratio, the target individual employees based on the best practice of the Microfinance industry national and international based.

5. **Discussing the results**

The result of the appraisal is communicated and discussed with the employees on one-to-one basis. The focus of this discussion is on communication and listening.

Example from the microfinance institution: there is different levels of feedback and performance discussion based on the subsequences of the employee performance. For the beginners and weak performed employees' feedback and appraisal process period is so tight (Weekly- biweekly or monthly based). In addition, there another line of supervisor interacting with the Employees based on their productivity and the quality of their portfolio and customers.

Methods of Performance Appraisal:

I. The performance appraisal (Traditional Methods):

Example:

1. *Rating scales Method*

   It depends on the job of the employee. The performance appraisal will focus on: Staff accountability, behavior, performance, and regulatory. With ranks from 1-10 (1 for negative performance and 10 for positive performance).

2. *Essay Appraisal Method*

   It is a performance evaluation of the employee based on true facts. it is included examples and evidence to support the evaluation process needed information.

3. *Paired comparison*

   It is comparing each employee with the others in the same team or group. the result of this comparison will end with the final ranking of the employees.

4. *Critical Incidents Methods:*

   The manager prepares lists of statements of very effective and ineffective behavior of an employee. These critical incidents or events represent the outstanding or poor behavior of employees on the job.

5. *Checklist Method*

   The Managers must receive an evaluation checklist describing the behavior of the employees during their jobs. The checklist consists of short sentences describing the performance of the employees during their work.

II. Modern Methods of performance Appraisal:

Example:

1. *Assessment Center*

   An assessment center is a place to evaluate an individual potentiality and performance, to position he/she in the core functional areas.

2.

3. *Behavioral Anchored Rating Scales*

   It is consisting of pre-identified critical criteria or group of the behavioral information mainly related to the employee's job performance. These information will describe the employee's performance is good or bad. For example the ability to adoptability, ability to understand the job, interpersonal relationship, etc). These information were developed to deal with the new incidents.

4. *Human Resource Account Method*

   This method created to measure the effectiveness of the personnel management activities and the use of people in an organization. Human Resource Account is process of assign budget and reporting to cover the expenses of the human resource of the organization. For example: Wages, salaries, and training expenses.

5. *Management By Objective MBO*

   "Management by objectives, it is a performance appraisal process when both the supervisor and supervisee should identify common goals, identify the supervisee's major area of responsibilities as an expected results from the supervisee. The supervisor will transferer these objectives into guides to assess and operate the supervisee contribution.

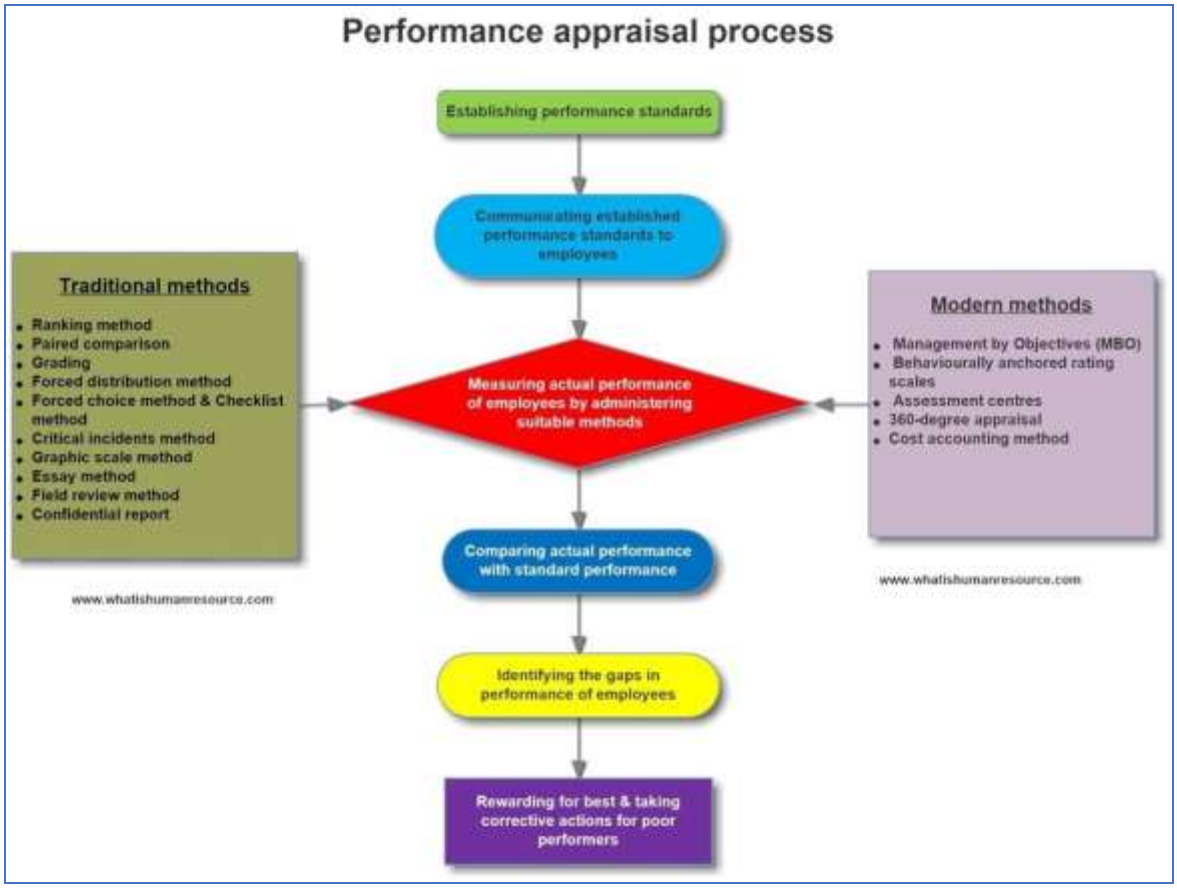


Figure 4- Tools of Measuring the Employee performance in the institution

Modules of Measuring the Employees Performance:

The microfinance institution employee's performance indicators to measure performance of employees. Gomes et al (2003) among performance indicators gives behavioral appraisals that focus on:

- *Assessing a worker's behaviors* and these include Working well with co-workers and coming to meetings on time.
- Poor employee performance a formula consists of form: absent, weak of outputs, losing the work deadlines, and disruptive and non-compliance. (Luthan 1981),
- Level of job satisfaction is one of the method to determine the performance of employees. *According to* **Keith (1985),** *job satisfaction is related to several employee variables such as turnover, slowdowns and absences.*

- **Keith (1985)** continues to assert that if rewards are seen as inadequate for one's level of performance, dissatisfaction tends to occur, and this is manifested in the above-mentioned variables.
- There are different modules of measuring the employee's performance of the microfinance institution:

1. *Microfinance institution's employee's traditional (Checklist traditional) performance appraisal Module).*

   The supervisor is given a best practice guidance/checklist for the description of the employee's work behavior on their job. The checklist consists of a list of sentences of which help the supervisor to describes the on-the-job employee's performance.

   For Example: Employee Name and position (Supervisee), Performance Appraisal Duration: From Jan 2021 to Dec 2021, Name of Supervisor and Position.

Table 2- The traditional) performance appraisal Module in the microfinance institution

#	Checklist	Best practice (National Wise)	Planned	Actual	Deficit	Areas need to be improved
1	Ratio of Annual portfolio growth per each employee.	15-20% Annual	10%	5%	-5%	Strategic management, Operation Management
2	Number of Active Customers per each employee.	Individual Lending = 150 customer / Loan Officer Group Lending =400 Customer/ Loan officer	200 Individual and 350 Group	100	-100	Portfolio Management
3	Portfolio value per each employee.	1 Mn EGP/Loan Officer	1 Mn EGP	2 Mn EGP	+ 1 Mn EGP	Portfolio Risk Management

#	Checklist	Best practice (National Wise)	Planned	Actual	Deficit	Areas need to be improved
4	Customer's turnover ratio	5-10%	5-10%	20%	10%	Customer Satisfaction
5	Portfolio at Risk ratio per each employee	1-5%	1-5%	10%	+5%	Credit Risk Management
6	Ratio of defaulted loans/customers per each employee.	1-2%	1-2%	5%	+3%	Delinquencies Management and internal auditing

1. *"MBO-Management by Objective module performance appraisal of the employees of the microfinance institution*

   In the Microfinance institution, will provide to the supervisors and supervisees a clear goals, Objectives, and major areas of responsibilities to the supervisees through their job descriptions. They will use the measures as operation guides for feedback, performance monitoring quarterly, semiannually and annually base to the staff.

2. *Microfinance institution employee's Old and modern performance appraisal module management by objective module.*

This module will be matched between the old and new school of the Microfinance employee's performance appraisal "checklist and the Management by Objective module)

The selected Module will consider the following: List of Microfinance employee's performance Appraisal factors:

- Productivity:
- Problem Solving:
- Quality of Portfolio:
- Team working
- Working under pressure.
- Others

There are many questions that the research will try to find answers to through interviews with employees of the microfinance institutions - as follow:

- Will Electronic payment services make the microfinance institution jobs irrelevant?
- Do the customers and employees will accept the Electronic payment services at the microfinance institution as a new noncash payment tech-culture?
- How employees track and solve the expected Electronic payments services problems?
- What is the Electronic payments services transaction that related to the receive loans process (Amount, financial and operation cycle)?
- What is the employee's workload to the partially and no Electronic payments services repayments from the customers?
- In case of delinquency and defaulted loans, what is the implications on the loan cycle process and the employees' operations in different managerial levels?
- What are the subsequences on the operation and the employee's workload and performance of E-paying in advance of the customers installments?
- How often Electronic payments services systems reduced or increased the employee's workload. For Example: The loan Disbursement Tracking, Loan Repayment Tracking, Repayment & Loan Disbursement problem solving?

Conclusion:

The credit cycle in the microfinance institution is consists of several stages until will come to the loan disbursing and repayment. This is included but not limited to: credit time, efforts, cash handling and flow of necessary on-time information to measure the employee's performance.
microfinance institution always remaining the largest stakeholders in technology (Especially the Electronic payment services). Technology has modified the traditional concept of banking from merely accepting advanced loans. The Electronic payments services is not a tool to facilitate the Loan disbursements and repayments by the customers, but also source of tracking the customer data that helps the employee's performance of the microfinance institution generally and its employees specifically. This tracking process can discover early the related performance problem to assess the mangers to take their decisions on time, effectively and efficiency way.

Moving from the traditional credit cash disbursing and collecting system of serving the customers and have long waiting list of them as the credit cycle is handling manually and no technology used in the process this is make lot of losing the benefits from revolving the loan cycle among the customers.

Customers today is asking for: Quick response, appropriate service, several credit deliveries channels.

In credit disbursement and repayment both customers and employees of the microfinance institution are facing a lot of workloads for example:

- Customers must receive message from the institution's loan officers on the date and time of receiving the loan.
- Customers must come physically to the institution's branch paying transportation fees, losing his/her time to wait, carrying their official papers, grantors, etc.
- Customers must finish lot of paperwork that take lot of time inside the Microfinance institution. Staff will lose too lot of time in doing all this paperwork with the customers.
- Customer must sign on the contracts, receipt of receiving the credit and all related paperwork.

- In the previous tradition monetary process at the Microfinance institution, customer will receive the credit from the Microfinance institution either in cash or in cheque.
- The Microfinance institution employees must prepare set of paperwork before and after credit disbursing and repayment process
- The Microfinance initiation employees must bring cash in advance from the bank to their customers and keep it within the branch that will expose the cash to be stolen.
- Microfinance institution's branches' tellers and accountants must prepare the cash for the customers and close the disbursement process in certain time, to start the cash reviewing and paper auditing work.
- Microfinance institution's branches' tellers and accountants must keep the remaining cash in the venue of the branch and that will be exposed to be stolen.
- Microfinance institution's branches' Tellers have to move the remaining cash every week to the bank before the close of the branched during the weekend.

So, Electronic payments services process came to reduce all the procedures of Credit cycle time, staff efforts, affordable risk and expenses lose for both customers and Institution.

Electronic payments services is not mandatory as per the law of Government of Egypt starting from September 2021 but it is easy way to access all customers payments (Cash in and out) through 3rd party that prevent these payment from unrestricted risks.

The employee's performance of the Microfinance Institution can be measured by using the employee's efficiency, effectiveness, and satisfaction indicators.

Chapter Three:

The Microfinance Institution

Chapter Three: The Microfinance Institution

Chapter Preface

This chapter describes the direct and indirect effectiveness of the implementation of the electronic payment services on the employee's performance of the Microfinance employees.

This chapter will highlight the relation between, the electronic payment and the staff performance. In addition, the possibilities, and opportunities for the Microfinance industry to be digitalized. The major risks and challenges that facing the digitalization of the Microfinance institutions in the implementation of the electronic payment services. This chapter too will discuss the important of technology on the microfinance e customers and employees to proceed the Microfinance institution effectively and efficiency. This chapter too will present summary samples from other countries studies and modules that adopting the electronic payments services.

The Microfinance Definitions:

Microfinance

It is an expression of any innovation in fighting against poverty for social inclusion. The rapid changes of market should continue investing in the Microfinance to fill the financial gaps and need of the poor and low-income customers. .).(Fred44eric Fourrier-Head of the Solidarity Finance Observatory FINSANSOL.).

The Microfinance is the small-scale financial services (Credit and savings) provided to the low income and poor customers, who operate micro and small enterprises to produce goods/services to be sold Robinson (2001).

Another divination by Marakkath (2014), identified the microfinance as collection of institutions which providing financial services to the poor and low-income customers and promote the micro enterprises businesses to reduce poverty. Microfinance could be provided by several forms of Institutions: Credit union, non-governmental Organization, private firms, and formal banks.
Helm (2009) classified the microfinance institutions into several structures: the microfinance bank (Managed by the same commercial banks), Rural and communities Non-formal banks, Cooperative network, Non-Banking financial Institutions (Not registered as commercial formal banks)

Galinski (2013). Define the microfinance as a banking service which provide this services to the unemployed or low-income customers or group of people, who didn't have easy access to finance products. So the microfinance is an easy access to the low income and the poor customers who haven't an easy access to job opportunities or haven't an easy access to the commercial banks and other private individual lenders. The Microfinance financial services sand products could be loans, insurance, savings, remittances, and other financial services. Number of financial services to the low income and poor customers will reflect an effective microfinance services. These financial services will be demanded by the customers will support both the existed and start up micro and small business of the low-income and the poor customers. The purpose of the financing the microbusiness of the low income and poor customer are start the running of a small business, increase their assets, mitigate the financial risk, raise the productivity, increase return on investments, increase income increase access to welfare.

There is another terminology called ***Microcredit*** that mean: an aspect of microfinance which includes all types of loans that the microfinance institution, such as banks and insurance companies, provide to poor or unemployed individuals. the small loan facilities disbursed to the low income and poor customers with less earning, to motivate them to become self-employed. ***Microcredit*** is an aspect, or part from microfinance. ***Microcredit*** is disbursed small size of loans with short repayment period. They are granted for small-scale activities that direct to serve local needs.

Historically, microfinance mostly refers to microcredit. A microcredit corresponds to a credit of small loans disbursed to customers who having little or no income.

Benefits Of Microfinance

The world Bank declared that up to 500 million of low income and poor customer people have improved their income and economic and economic conditions by the microfinance financial products. In addition, IFC International Finance Corporation, declared that 130 million customers were benefited from the microfinance financial products. At the time 20% of 3 billion poor who fall under the category of poor people who represent the direct target to the microfinance financial product. IFC contributed to develop and improve the practicing of microfinance products at 30 countries worldwide and it was affected the stabilities of the poor customers families.

Historical Background of Microfinance

The history of microfinance started in the development countries in the last century when Dr. Mohamed Younis (Nobel prize of peace 2006) had created the 1st microfinance system titled Grameen Bank in Bangladesh. The history of microfinance can be divided into 4 periods Srnec, Havrland (2004).

The first period (Expansion stage) from 1976 to 1980: When the microfinance institutions have a good rate of return than the commercial banks; for example in 1980 Bank Rakyat in Indonesia they gained the largest operation sustainability without subsidies (Robinson, 2001).

The second period from 1980-1990 (Increasing stage). When the Microfinance Institutions started to cover their expenses.

The third period from 1990-2000 (The Commercialization stage). When the Microfinance institutions started to attract commercial investments and funds and started to grow rapidly.

The fourth period, from 2000- Present (The Transformation stage) Nowadays – Microfinance institutions completely transformed from the informal to the formal microfinance. The local financial market made mix between the informal, semiformal, and formal financial institutions at the rural areas and low-income urban areas at the development countries (Germidis et al., 1991). Each entity (non-formal, semi formal and non- formal) have specific role in the financial market.

In 2016, and one year after the implementation of the Sustainable Development Goals (SDGs), the Microfinance promotes access to finance, but also to health, agriculture, education, energy, and housing services. In 2019, microfinance, from the institutional strengthening, the microfinance faced 3 parts of transformation:

- The investments diversification.
- The increasing use of new technologies.
- The development of several financial and non-financial services.

The meaning of microfinance is the identification of the provided financial services to the low income and non-banking people in small scale (Hartarska, 2005)). In another definition it is a mix of range of financial services like loan repayment services, deposits, remittances and transferred money and insurance coverage to the low income and poor people and their farm and non-farm microenterprises (Mwenda and Muuka, 2004, p.145).

Microfinance institution is *a Microfinance institution that provides Micro loans to people who otherwise wouldn't have access to credit to financially support their existed or startup microbusiness.*

The term "microfinance institution" means "it is financial entity which provide financial services and products to expand reaching the target low income and poor people to microfinance and microenterprise clients in the country.

Microfinance services are considered as method for poverty reduction by improving access to finance and providing demand driven financial services and products to the low income and poor people. Microfinance service complement as non-banking sector is affecting and differentiate from the formal banking sector in providing the financial services to the low income and poor people. The reasons from providing a financial services to the poor to empower their economic capacities by creating their income generating capacity to increase their access to all demanded development requirements. It will contribute the poor to get out of the sever impact of the poverty and reduce their vulnerability to dislike events (Davis et al., 2004).

The main objective from establishing a microfinance institution is as in the development organization to provide and cover the financial needs of the poor and low-income people in the market. This will lead to meet the development objective through create job opportunities, reduce the poverty and helping the microbusiness of the poor people to grow or mitigate their business risks, diversify their products, empower the women, and disadvantage people Ledgerwood (1999). The excellent impact of the microfinance institution works to change and improve the socio-economic status of the poor people, could be achieved if the microfinance institution will perform a good financial and operational performance. Both the operation and financial sustainability of the microfinance initiations is a very important conditions for enhancing the institutional sustainability (Hollis & Sweetman, 1998).

There are three types of the microfinance initiations:

- *Microfinance formal institutions* – this includes all the formal financial institution which regulated by the formal financial authorities (E.g. commercial banks, development banks, rural banks, credit unions, etc.).

- *Microfinance Semiformal institutions* – this includes the formal financial institution which regulated by the non-formal financial authorities (savings and credit cooperatives, unregulated village banks, etc.).

- *Microfinance Informal institutions* – this includes the financial institution which will be controlled by the customers regulation and their peer pressure as much as possible (Rotation Savings and Credit Association., Accumulation Savings and Credit Ass., SFGA – Small Farming Groups Ass., Self-Helping Groups, Peering Groups, doorstep collectors, etc.)

(Source: **Microfinance Gateway 2006**)

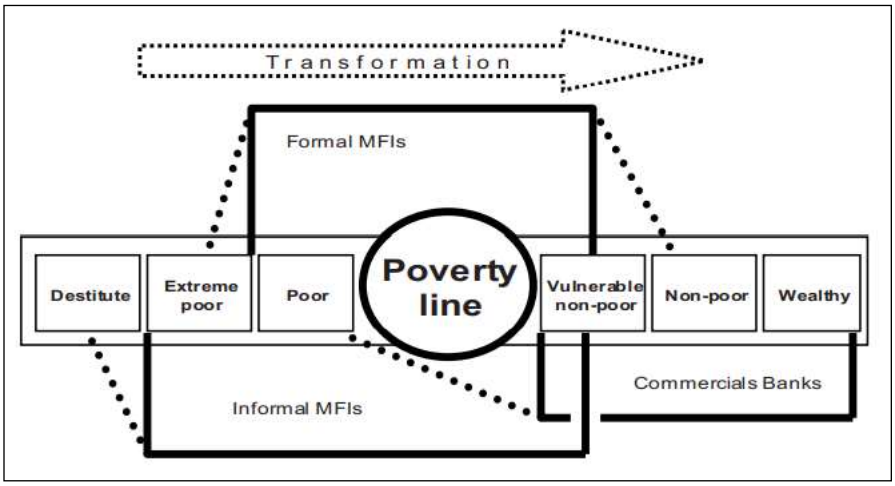


Figure 5- The outreach and impact of format and informal microfinance institution on poverty line

Definition of the Formal Microfinance institution

Formal Microfinance institution the category of formal Microfinance institution is more active on financial market, and thus more dependent on external financial sources than previous category. There is a higher risk by financial services providing to clients (interest rate fluctuation by external sources). The local rural or family relations play very important role in secure recovery of provided actives to the microfinance institutions. The position, authority, reputation of local personalities often substitutes guarantee instruments which are normally used.

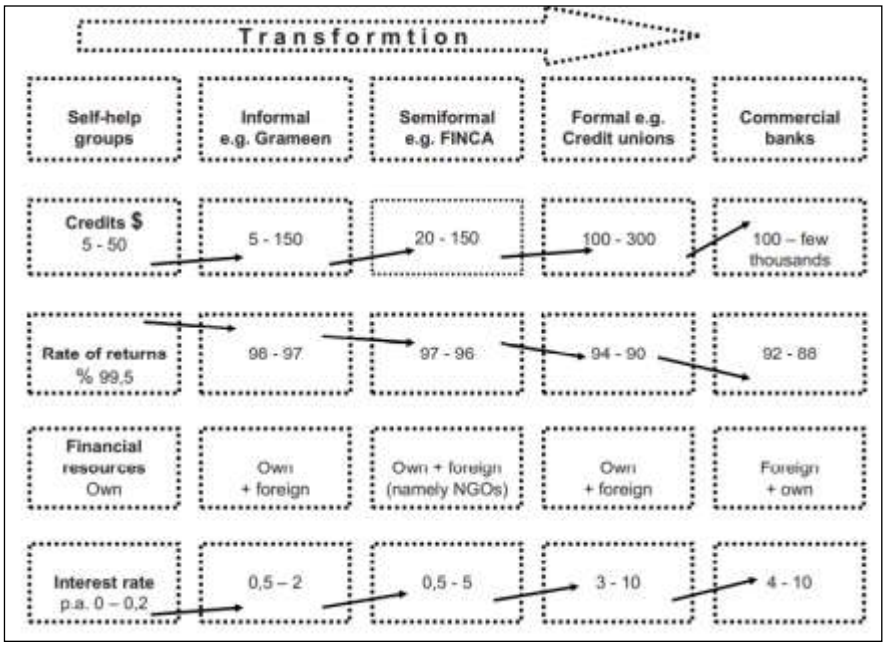


Figure 7-Transformation of the microfinance institutions and microfinance activities

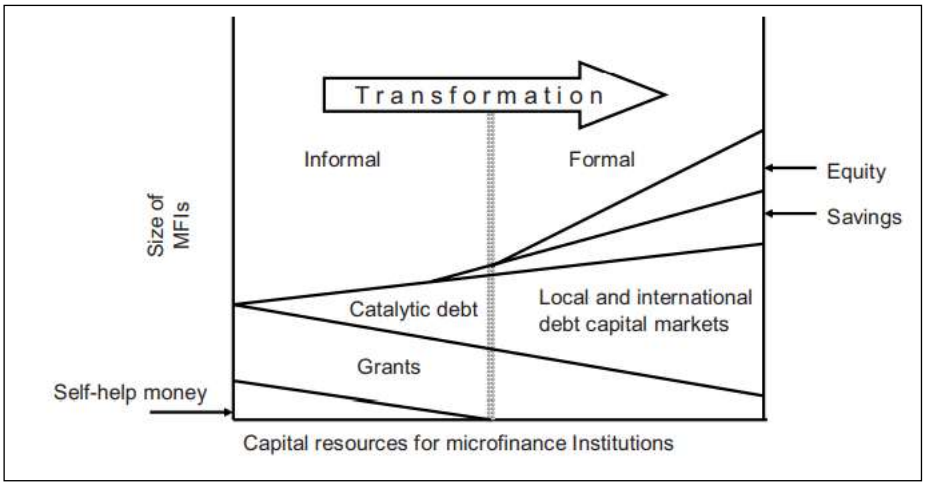


Figure 6- Lifecycle for financial Microfinance institutions growth

Source: Srnec, Gebrianova (2006)

Microfinance has been and will continue being an indivisible part of the financial system. It has low risks as compared to standard loans. This is due to the fact that rural environment effectively watches financial resources. In addition, there is strong need for sustainable, stable, and controlled financial system – with microfinance as its competent part. By increasing a Microfinance

institution's access to stable sources of long-term funds, transformation reduces Microfinance institution dependency on donated funds. The current status of Microfinance institutions differs in several worlds' regions. The essential difference consists of e.g., different organizational and economic structure, reach and the amount of providing services, relation to financial-legal system, etc. The formal sector dominates in the urban area and informal in rural area. The formal one is transparent, professional but less or not accessible for the suffering poor, In addition, the main strong point of the informal sector is very the accessibility for the poor. Speaking of developing countries where overwhelming majority lives in remote areas (or in primitive conditions in urban areas) with bad infrastructure, without any property we must submit that informal financial services are necessary – for their outreach. The transformation process, as the next step in financial development needs to go hand by hand with socio-economic development, with the increase of living standard otherwise the situation in developing countries could come to the point where we would have "modern" formal financial institutions with professional products, no clients, and hungry crowds in front of them.

The efficiency in microfinance sector

In a specific giving level of input s able to produce maximum results, and it is the most effective way to provide small loans to the poor people in microfinance context (Woller, 2000). By gaining the financial sustainability of the microfinance sector through minimize the microfinance expenses and maximize the income. So the efficiency of microfinance sector can be measured though its productivity (Number of customers per staff), and expenses of management (expenses per customer) variables. Woller in 2000 did a study on the financial variabilities of the village banking initiations, to compare between their past performance and the prospected future to variables which connected to the financial sustainability of these initiations. In 2002 Woller and Schreiner examined the elements of the financial sustainability of the institutions, they found that the productivity was significant related to the profitability.

On 2010 Ganka form Tanzanian Rural microfinance explore negative and positive statistical relation between number of microfinance customers per staff and the financial sustainability. Ganka found the staff of microfinance of the rural initiations are not efficiently because they failed to manage their customer at the time number of customers will grow and that is ended up with unsustainability of the microfinance initiation. In 2010 Ganka, prove statistically that there is no relation between the expenses per customer and the Microfinance self-sustainability. In 1995 Christen et al, found there is no relation between the staff productivity and the sustainability of the financial institution.

Microfinance worldwide

Most of the microfinance operations existed in the 3rd word countries such as Uganda, Indonesia, and Honduras. Microfinance sector is charging an interest on the loans of the clients and then the financial institutions set up a repayment plan. Over 500 million people were benefited from the microfinance services worldwide (World Bank). The main goal of the microfinance is to provide an opportunity to its clients for to become self-sufficient of their financial needs.
In the last ten tears, the microfinance institutions have provided financial services to 500 million of its clients with annual growth ration near to 11.5 percentage within the last five years.
The microfinance inaction started to improve its efficiency. The cost per borrower were increased from $64.4 in 2009 to $106.7 in 2018 with increasing ratio near to 56%. At the same time, the rate of the operation ratio was decreased from 2009 to 2018. Return on assets and equity were increased too.

The microfinance markets in East Europe, Central Asia and MENA Regions are still stat-ups and small markets. At the same time the market of these regions is growing by the number of borrowers with 5 million borrowers in 2018. The outstanding portfolio in MENA Region had been slightly increased in 2018.

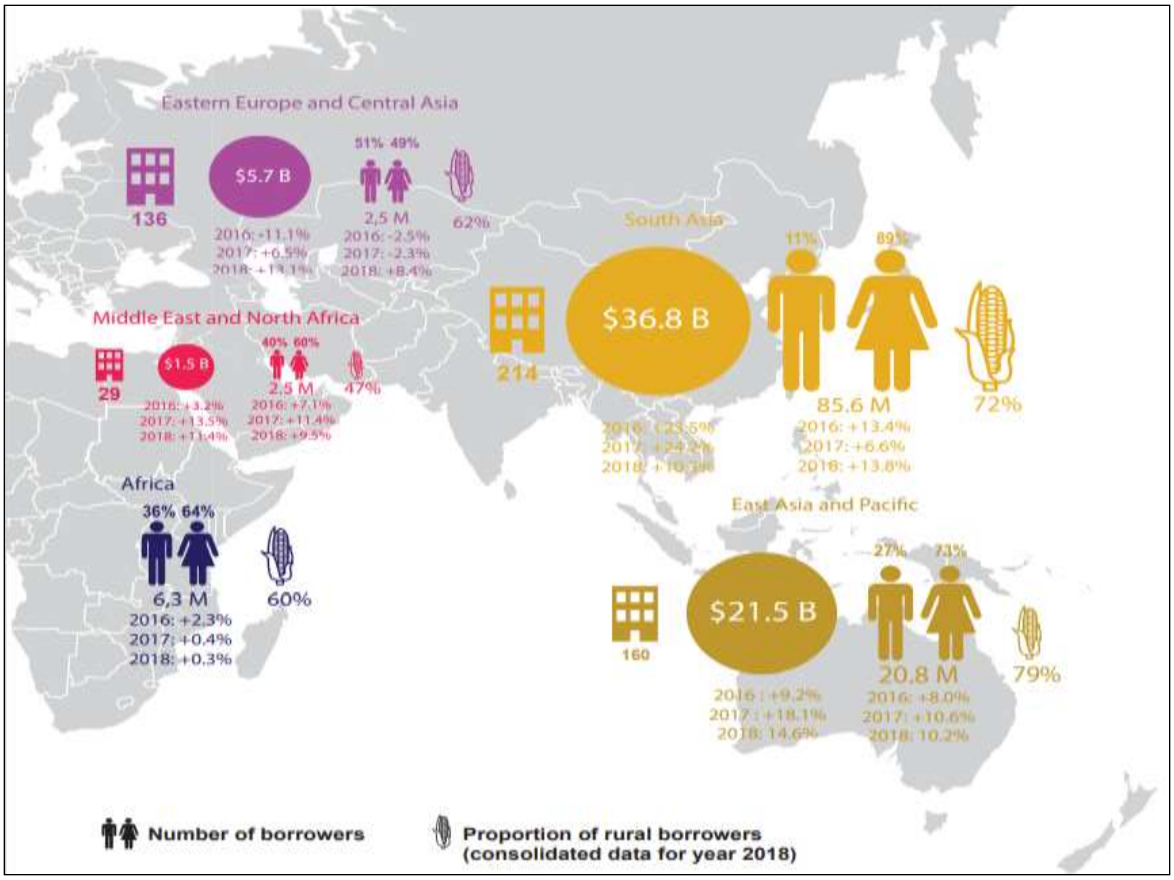


Figure 8- Microfinance Industry worldwide 2018)

The Microfinance worldwide is the base of the of the microbusiness enterprises. For example in India the microfinance is the base of the entrepreneurs with small business. Microfinance institutions are charging an interest rates on the loans. While this interest rate on microfinance loans is higher than the banking loans because it is costs is very high. For that reason most of the microfinance initiations are accused to have gains from the target poor clients from the charged and fees of the microfinance financial services. In additions, banks are not interested to invest in microfinance services as it has a high operation cost and insecure for the banks too. for all of these limitation microfinance sector was developed in India as alternative financial solution to the low income and poor clients.

In Tanzania the micro enterprisers started their microbusiness in the field of providing water supply credit. In some reviews, the performance of some lending institutions was met with severe criticism by charging the poor groups benefiting from the services of microfinance institutions and transforming them from financing institutions that support the financial position of the poor to institutions that seek to profit from

Future of Microfinance

The socio-economic benefits from the microfinance sector is the main focus of the microfinance institutions. They translated it into their policies, by-laws, procedures and their developed products and financial services. At the end, the financial institution will measure the actual impact by using the ways to measure their social impact on their clients.

Microfinance in Egypt

The microfinance sector in Egypt is playing an important role to improve the socio-economic status in Egypt, especially women, poor and low-income people (Agnes, 2016). Most of studies on the microfinance in Egypt, were focused on the rural areas and used very simple statistics and tools to study the status of microfinance in Egypt. As a results, there are lack of controlling the effectiveness of the demographic characteristics (Hashemi et al., 1996). The Central Bank of Egypt had launched three initiatives to support and develop the financial inclusion in Egypt.

1st initiative focused on supporting the SMEs in Egypt. the 2nd initiative is to support the tourist sector, and the 3rd initiative is to support the real estate sector in order to support the low- and middle-income people.

The microfinance financial services were provided by:

1st Non-Governmental Organizations, which are registered with the Egyptian Ministry Social Solidarity in accordance with the non- profit organization law in Egypt. 2nd, the private sectors that have a valid license for the provision of payday loans from the Egyptian Financial Regulatory Authority-FRA in accordance with the provision of law no: 10, 2009 regulation non- banking financial market and instrument. 3rd, the commercial national and international banks in Egypt (Hashish,2014).

The law prohibits the licensed Microfinance Institutions in Egypt from developing savings and remittances financial products and the microfinance institutions are only for lending loans, and leasing. In the provision law, microfinance means is offering financing for economics, productivity or services or commercial purpose with value determined by FRA and it shall not exceed 200,000 EGP. The Central Bank of Egypt is supporting the Microfinance institutions in Egypt with 100 Mn EGP low interest rate price portfolio to serve the Microfinance portfolio in Egypt.

The microfinance initiations in Egypt are supporting the customers by demand driven financial services with startup loan capital for micro and small business enterprises. The microbusiness of the low-income customers with loan size between 10,000 EGP – 200,000 EGP ($635-$12,698).
In addition, to provide financial education services (non-financial services) to its clients to teach them how to invest in their businesses? The financial education training programs is focusing on specific related knowledge and skills to the client's business (Eg: Money management skills, Marketing skills, feasibility study preparation skills, bookkeeping skills, financial management).
Some studies findings suggest that microfinance should be included in economic policy and modelling because it has been shown to enhance the socioeconomic well-being of the target por and low-income clients. It also plays a central role in creating jobs for women, especially those with low education. Therefore, microfinance opens opportunities for poor customers especially women borrowers to play a significant role in economic development.

The Egyptian policymakers and regulators should study the graduation of the target poor and low-income clients from the microfinance sector. As they will not be able to be graduated from the microfinance as financially self-sufficient. So the purpose of the microfinance sector is not enhancing the socioeconomic of the low-income clients, but also to build individuals' capacity.

In Egypt there was 990 registered Microfinance Institutions under the law 141/2014 and the direct supervision from the Financial Regulatory Authority in Egypt.
In Egypt, the Microfinance institutions were classified into 2 types (Firms and NGOs), and 3 categories:

- Category (A) with outstanding portfolio more than 50 Mn EGP.
- Category (B) with outstanding loan portfolio from 10-50 Mn EGP.
- Category (C) with outstanding loan portfolio less than 10 Mn EGP.

Reference to FRA-Financial Regulatory Authority in Egypt web portal the status of Microfinance industry until the end of 2020 is:

Based on the sustainable development goals, the Egyptian financial inclusion will target the empowering of women and youth. It has supported microfinance activity by raising the efficiency of its staff, as well as educating the community about the role of microfinance, in addition to issuing many regulatory and supervisory decisions that had positive effects on impact of these initiatives. It is expected that these effects will be continued. Where the Egyptian authority has allowed microfinance agencies to practice microfinance leasing activity, issuing an electronic payment service in granting financing and collection, and using payment systems through mobile phones.

The value of microfinance balances amounted to 8.17 billion Egyptian pounds by the end of the first quarter in 2020, achieving a growth rate of 40%, and according to the slowdown in economic activity due to the Covid-19 pandemic, the annual growth rate reached % 17, bringing the value of the balances to about 3.19 billion pounds by the end of 2020.

The number of beneficiaries reached 2.3 million by end of the first quarter of 2020. Microfinance Institutions in Egypt have increased their presence and geographical spread through 2,840 Branches by end of 2020. - The microfinance sector had contributed significantly to supporting women, as females accounted for 62% of total number of clients (2.3 million).

Source: FRA-Financial Regulatory Authority

Table 3- The Egyptian Financial Institutions Progress (2019-2020)

Financial Institution Category	End of 2019				End of 2020			
	# of Clients (per 1000)	Importance %	Outstanding Portfolio in Mn EGP	Importance %	# of Clients (per 1000)	Importance %	Outstanding Portfolio in Mn EGP	Importance %
A	1,699	54.56%	6,930 Mn	41.95%	1,665	52.63%	7,480 Mn	38.66%
B	120	3.85%	581 Mn	3.52%	88	2.79%	580 Mn	3.00%
C	161	5.17%	706 Mn	4.28%	144	4.56%	710 Mn	3.67%
Firms	1134	36,42%	8,299 Mn	8,299	1,266	40.02%	10,579 Mn	54.68%
Total	**3,114**	**100%**	**16,516 Mn**	**100%**	**3,163**	**100%**	**19,349 Mn**	**100%**

REDEC Qena Microfinance Institution

In1996 REDEC Qena Microfinance Institution had been started with the support of the Canadian International Development Agency (CIDA), is aiming to provide job opportunities for unemployed youth and low-income customers to mitigate the severity of privatization programmes in Egypt. As per 2020 annual microfinance report, REDEC Qena Microfinance Institution has an active 7,841 customers disseminated among 8 branches in 2 governorates in Egypt. The total outstanding portfolio is 86 Mn EGP ($5,394,100). The Microfinance institution has different source of funding from commercial public and private banks, and international source of funding. The Institution has 5 board of trustees, and over 211 staff in different managerial levels (Field executive staff represent 45% from total number of staff). Ture over rate is 20% from total number of staff.

Characteristic of the customer of Microfinance institution?

The majority of Microfinance characteristic are:

1. **Type of customer**

- With low income and with regular cash flow.
- workers in the informal sector, with low wage bracket
- With lack or absent of guarantying
- Mixed and interacted business and household activities.

2. **Other Market segment:**

- Workers without owning agriculture lands, but they are working in seasonal work in different type of household business.
- Small and marginal farmers and workers with self-employed in the sub urban areas in the informal sector as small merchants, vendors, and workers in household microenterprises
- Medium farmers/small enterprisers who have gone into commercial.

The statistics in Egypt indicate the 84% of the Egyptian didn't have bank account. The Central bank of Egypt is supporting, the fast development of fintech and digital platforms will help the un-banking and served Egyptian with set of financial services. These electronic financial services will be provided in rapidly, with high security, low cost, accuracy and effectively.

Microfinance Institution Strategies to enhance the using of the electronic payment services

There is a lot of Electronic payment services strategies that the Microfinance institution follows to enhance adoption of electronic payment services as follow:

Strategy of enhancing the performance and capacities of the Employees of the financial institution to implement the electronic payment services

In this strategy the financial institutions will increase staff training opportunities on technology use, cybercrimes. The financial institution could make a staff linkage staff with external expert to enhance their electronic payment services understanding. The financial institution could encourage its staff to change their attitudes towards the Electronic payment services.

Strategy of enhancing the Financial Institution Customer awareness

In this strategy customer will be in the focus of the financial institution. The mid and low education condition off the financial institution's customers will be one of the challenges to the institution. Raising the awareness of the financial institution's customer awareness by conducting several campaigns about the existence and characteristics of a Electronic payment services. Provide customer's promotion of the electronic payments services to make cash payments by focusing on the advantages and providing customer incentives.

Strategy of providing electronic payment services with appropriate Pricing

In this strategy the financial institutions will offer a differentiated fee charged per transaction to its customers. It could offer a non-differentiated periodic subscription. Financial Institutions could offer options of mixed of fixed and variable fees charged.

Strategy of providing convenience Electronic payments services product

In this strategy the financial institution will increasing access to the Electronic payment services anytime and anywhere to its customers. The financial institution will increase access to the various points of sales/services of its Electronic payment's services, (EG: Point of sales, ATM, pre-paid Debit cards.ect)

Microfinance performance and Management

Management is a very important part to measure the performance of the microfinance institutions. There is a major relationship between management and governance of the Microfinance institution. Are the microfinance institution's performance, management, and governance being reasonable, regarding its length of time in operation?

The following are some questions that will identify the current the management and governance of the microfinance Institutions:

- Briefly describe the Microfinance Institution's history and evolution, to provide context for its current operations.
- Essential information includes the microfinance institution's formal name, year of operations, and current organization structure.
- If the microfinance institution is a part of centralized umbrella institution, what is the organization structure, the strengthens and weaknesses of this relationship, Whether the organization keeps separate accounts from the microfinance activities?
- Does the microfinance institution's formal structure meet its existed and long-term needs?
- If the answer is not, will the transformation be possible? If the microfinance institution is looking to implement a new formal structure, describe what is the purpose of this implementation, the rational from doing that and identify any related expected risks?

Microfinance Management

- Does management have the experience, ability, vision, and leadership to lead the Microfinance Institution to achieve its mission?
- Describe the backgrounds and positions (CEO, chief financial officer, and so on) of the management team. Provide an evaluation of top management, based on fact and opinion
- Has management handled any particularly challenging internal or external circumstances?
- Has management been candid with the analyst (and others) about past or current challenges facing the Microfinance Institution?
- If the microfinance institution is new, does management include anyone with a track record of achieving sustainable microfinance in another institution or setting? If not, does management have access to intensive support (more than a few weeks a year) from someone with such a track record?

- How effective is management in representing the Microfinance Institution externally, responding to crises (cite examples if possible), and advancing the Microfinance Institution's vision and mission?

Microfinance Organizational structure:

- Does the Microfinance Institution's organizational structure ensure staff accountability?
- Is the organizational structure designed to optimize the Microfinance Institution's branch network (if it has one)?
- Does the organizational structure enhance the Microfinance Institution's efficiency and productivity? Does it lower costs for the Microfinance Institution and its clients? Do staffing levels meet client demands?
- How do branch structure and management influence the Microfinance Institution's ability to meet clients' needs effectively and efficiently?
- Include the Microfinance Institution's organizational chart as an appendix to the appraisal report. Are key functions represented in the structure?

Evaluate how the organizational structure supports management:

- How are departments or units organized (e.g., cost and profit centers)?
- Does the organizational structure contribute to efficient processes and decision-making?
- Is it appropriate for the Microfinance Institution's mission, scale, target client base, geographic dispersion, and local environment?
- Do the number and type of staff in the Microfinance Institution's headquarters and branches match their levels of responsibility and delegated authority? (The headquarters may be an administrative head office but is often a key branch as well.)
- Are branches treated as cost or profit centers? How effective is this approach? Are head office costs fully and appropriately allocated among the branches?
- How is the branch reporting system organized? What inputs do branch managers have in the annual planning and budgeting process?
- Are staff functions assigned appropriately? (For example, are too many functions given to one person, or is a single function spread inefficiently across too many people?)

Human resource management:

- Does the Microfinance Institution have enough motivated, trained, capable staff to implement its mission?

Conclusion

At the end the term of Microfinance is financial support and services that targeting the low income and poor clients with non-formal microbusiness, and they can't have easy access to banking finance. The relation between the microfinance institution employees and their clients will guarantee financial and operation sustainability. Based on the regulatory in the country base, there are three types of microfinance insinuations the formal, semiformal, and informal.

I am against this opinion as the sudden use of the technology will increase the employee's turnover, they will not be able to adopt with the technology using changes in the Institution.

If the system/server of the Electronic payments services will get down or there is a slow in the network peed as results of bad infrastructures in some branches, in this case what will be the alternative operational plan to reduce the non-paying of the installments and solve the on-time credibility problem with the customs? What is the contingency plan? Who will do what, when and any trained clear procedures that related to this sudden stop of the Electronic payment's services?

What is the role of electronic payments literacy training with the institution's employees? Who will do this training? What are the indicators to measure the impact of this training?

The research will answer the questions:

- *What are the operational risks that can be managed by* electronic payment services?
- *What are the challenges of* electronic payment services*?*
- *What are the strategies that can be used to enhance the implementation of* electronic payment services*?*

Chapter Four:

Effectiveness of electronic payment Services on the Employees Performance of the Microfinance Institution.

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Chapter Preface

This chapter describes the direct and indirect effectiveness of the implementation of the electronic payment services on the employee's performance of the Microfinance institution.
This chapter will highlight the relation between the electronic payment and the staff performance. In addition, the possibilities, and opportunities for the Microfinance industry to be digitalized. The major risks and challenges that facing the digitalization of the microfinance institutions in the implementation of the electronic payment services. This chapter too will discuss the important of technology on the microfinance e customers and employees to proceed the Microfinance institution effectively and efficiency. This chapter too will present summary samples from other countries studies and modules that adopting the electronic payments services.

2014 to 2016: professionalization and digitization of microfinance, after the wake-up call of the early 2010s, the years 2014 to 2016 saw the continuous professionalization and improved efficiency of microfinance. The period was first characterized by a diversification of investors in the microfinance sector. *In 2014, Christian Enzensberger*, analyst at responsibility, noted that the arrival of pension funds marked a turning point for the sector.

The effective partnership and collaboration between the microfinance institutions, Fintech and mobile companies, had led to be more effectiveness and efficiency of the implementation of the microfinance services especially in the electronic payment services.

Globalization has brought organizational changes in the world economy. It accelerated the competition in the services sector in general but more specifically in the banking and Microfinance services. Innovation is deemed to The Implications of the electronic payment services necessary to provide Microfinance Institutions with a strategic orientation to tackle challenges facing their work, while sustaining their competitive advantage suggests that creating innovations is the real changes in the environment.

Investing in innovating technology in microfinance sector will result an advanced systems, tools, and financial service delivery channels. The benefits from technological innovation methods and tools will increase the operation speed of the financial institution's (including banking and non-banking forms), gain an effective communication, support the management decision making process, and increase the institution a competitive advantage and opportunities (Mutuku & Nyaribo, 2015).

The impact of the electronic banking on the performance of the bank's human resource was investigated by Olanipekun et al. (2013). The result of this study indicate that the electronic payment services have a good effect on the performance of the financial institution's human resource especially in efficiency, effectiveness of services delivered by the employees to gain the clients satisfaction at the same time. The implementation on technology in banking and financial institutions will brough structure changes in the work among the bank's employees according to Hitt and Brynjolfsson (2009).

For that reason, Rama Rao (2010) highlighted the important of bank's employees training to cover the required skills and knowledge to perform the new electronic banking tasks, after the implementation of the electronic banking technology.

Training in e-banking including the electronic payment, will help the employees to fulfill their work activities. The training for the employees of the microfinance institution will not be for one introductory time. The training is an on-going process to build the capacities of the bank's staff to deal with the technology implementation changes and challenges Akilandeswari and Jayalakshmi (2014), The important of the staff bank's training and capacity enhancement activities is crucial to adopt the staff knowledge and skills with the new work requirements from the implementation of technology in their jobs to enhance their performance with the innovation.
At the end, the implementation of electronic banking technology will not affect the staff job security and satisfaction.

The cost efficiency for the financial institution happened, when the electronic banking and electronic payment tools (Eg, ATM-Automatic Teller Machines, PoS-Point of Sale, and DFS-Digital Financial Services) will be implemented and replaced instead of the traditional teller staff

Norton et al (1995).

There is relation between the utilization of the electronic banking that reduce the traditional staff work in the bank then it leads to staff job insecurity (Findings by: Jannatul on Banking & Financial Studies Issue No. 35: January 2020, (2010).

In addition, Atiku et al (2011) finds the effects of the electronic banking by using ATMs and other electronic payment services will affect the bank's staff job stability in Nigerian banks.
Shirzadi, et.al, (2017), finds the use of electronic payments services, (Eg, telephone bank and electronic banking services) will affect the staff job stability and decreases job security.

Microfinance customers demand and supply in the case of providing Electronic payment services:

There are many barriers remain for reaching the most marginalized with useful services. Electronic payment services may include transaction fees that the poor cannot afford, deterring use. Many people simply lack money to open accounts Rashdan and Eissa 2019. High commission rates charged by both the financial institutions and the payment firms are particularly problematic for the clients for example: for transport, scratch cards, or items from kiosks. Both merchants and consumers need incentives to encourage their participation in the formal economy Khalil 2018.
Institution vision and mission should adopt clear use of technology in its indicators, and this will be the role of the mangers of the Institution to build this statement.
So, institution's vision and mission should be reviewed and adopted with the new developed and created technology.

The advancement in technology along with global and local competition, change in knowledge and attitude of customer has made the banking industry to restructure. Such factors have made the Microfinance Institutions to provide 24 hours a day and 7 days a week service. He further said that Institution's investment in technology and return from such investment depends on network availability Aliyu and Tasmin. The advancement in technology explores more opportunities for the Institution. The use of technology in accounting results in paperless banking which reduce the manual working burden on employee Ghasemi *et al.* It enables the staff to financially report in easy and accuracy way. It is increased functionality and improved accuracy.

Direct relationship conducted exist between technology and service quality in banking industry. If Microfinance Institutions use technology in their working, it will result in better service quality as well as enhancing the employee's productivity Ombati *et al.* 2011, said that the Institution's staff morale and motivation will be increase if it will investment in technology. It will decrease the turnover level and will motivate the employees towards innovations Dauda and Akingbade.

Employees are able to produce more because new technology enables them to perform multitask (Shaukat and Zafarullah, 2019). The investment in IT results in reduction in payroll expenses; however, there is no any impact of it on total expenses. It is increasing the staff productivity and the market share of the Institution. It also increases the revenue and profitability Kim and Davidson.

Financial digital innovation is paving the way for Micro, Small, and Medium Enterprises to have access to better financial services through several channels:

1. *Reducing costs and facilitating payments:* Digitizing payments have significantly expanded access and reduced costs for all users and especially for the financially excluded ones. Digital finance has reduced the costs of financial services by making it self-service or automated.

2. *Facilitating access to credit:* Electronic payment services has made it much easier to offer loans especially to the Bottom of the Pyramid group. Time and costs related to the loan applications have been reduced. The use of digital data analysis and machine learning for better assessment of existing structured and unstructured data sources (such as financial history, mobile usage data and ecommerce transaction data) have made it possible to expand credit access to the low income, poor and financially excluded small businesses.

3. *Enabling access to savings:* Digital financial solutions has made it also easier to have access to deposit and investment products by eliminating the high monetary (i.e. minimum-balance requirements and related fees to open an account) and non-monetary (i.e. geographic distance from a bank branch) costs that prevent individuals and businesses from opening deposit accounts.

4. *Enabling access to insurance:* Electronic payment services enables the financially excluded segment by enabling them to have access to tailored insurance products that match their specific conditions and needs (i.e. insurance services via mobile apps, ensuring automobiles, electronics, crops, micro and small businesses).

Microfinance Institution and staff Performance:

Performance is defined as it *is approach that measure to what extend the objectives of the organization was achieved in certain period of time.*

The organization objectives could be financial or non-financial objectives, so the performance could be measured in macro ad micro means.

Cooper (1992), factors which *influence business performance are experience, education, occupation of parents, gender, race, age and entrepreneurial goals*.

Rieva,2000 indicate that the financial performance of the organization could be affected from its market position. So the profitability can be divided into net turnover and net profit margin.

Ross, Westerfield and Jatte (1996) studied the two components that affecting the profitability. the 1st component is the high turnover and it mean, the good use of the assets owned by the organization. The 2nd component if high profit margins and it is mean, the organization has good market power.

both the digitalization and the growth of the organization is affecting on its financial performance. the market value of the institution relates to its results. So the degree and level of digitizing the organization could change its market value with better position. The high utilized electronic payment services in the organization should have high returns. Digitalization of the organization should match with the expected future profit of the organization.

Salomer, 2004 indicates that if the electronic banking rises, the end banking results will reduce the operation cost of the bank as the information technology is speeding up the bank procedures through the online network.

The electronic banking and the adoption of new technology will affect the staff job security. These practices by Electronic payments services reduce the reliance on manual procedures which will ultimately cause employees' job insecurity.

Finally, it provides the opportunity to deliver services with a stronger social purpose. On the mi-term level, the revolution of utilizing the technology will answer on the expansion of the financial inclusion among the financial institutions. Technology is allowing the financial institutions to be connected with true world economy. At the end theories proved that the good management of the electronic payment services, will support the performance of the financial institutions.

Opportunities of Microfinance digitalization:

The digital changes and revolution worldwide will make a pressure on the financial institutions. According to this fact. Graham Wright, Executive Director of Microsave, studied the challenges and risks of this digital changes on the microfinance sector.

There is a lot of benefits from digitalizing the financial services of the microfinance institutions, as follow:

- The digitalization of the financial services of the Microfinance institution will increase the revenues and reduce cost of operation. It could add 45% to the annual revenue and decrease the operation costs with 30% in the microfinance institution (Estimated by Mckinsey).
- The digitalization of the microfinance services will bring a good opportunities to the relationship banking. Fintech and digitalization of the financial services will match the needs and relation between microfinance institutions and banks. Clients' data, and financial behaviors, the infrastructure of the microfinance institutions that cover the human needs of the low-income clients. In addition, the traditional microfinance institutions is characteristic with the right regulatory clearances and compliance to offer formal financial services to its clients.
- The digitalization of the financial services of the microfinance institutions, will allow to provide personalized customer experiment. The Microfinance institution should understand the changes in the demographic and culture context of its clients. The digital solutions by the microfinance institution should match with customers' behaviors and attitudes.

Risks and Challenges of Digitalization the Microfinance Institutions:

In addition, there is some myth around the digital transformation of the microfinance institution, as per the explanation of Graham Wright, Executive Director of Microsave. He recognized that it doesn't solve the institution's problems and in sometimes is not suitable to some institutions.

It is important for the financial institution to start first to evaluate its staff and staff digital needs before setting up the digital solutions and services. It is obvious that there are some related risks to the digital transformation of the financial institutions. In some point, the microfinance institution will lose the focus on the social reason for this digital transformation (Through reduce the lending costs and improve the client's experiences). In addition, some existed risks related to the the fully digitalization of the financial services will disallow the clients' interactions with the institution.

Electronic payment Services relation with the operation risk Management in the Microfinance Institutions

As the Electronic payment services will be a great solution to the Microfinance institution to proceed the loan cycle fast as it could be a main problem to increase the Operational Risk Management by Electronic payment services Measure:

Reduce the Misappropriation of Funds:

This will be an effective solution to reduce the "fake Payments". Reduce the resulted errors, in calculating change from transactions (Between the Electronic payment services provider and the microfinance institution). The report will be launched digitally based on the accuracy of the reported data from the Credit Management Information system that related to the Electronic payment services of the financial institution. So, the Electronic payments services will reduce any expected financial errors, fake, fraud and non-transparency transactions from the client to the Electronic payment services to the Credit Management Information System to the Financial Management System of the Microfinance Institutions. The research will identify the gap between these stages.

Reduce the late credit delinquency management:

One of the important issues is to support the performance of the microfinance institution by discover the deliquesces in loan repayment. Digitalization the financial services of the microfinance institution by using the electronic payment services will help the managers to: Identify the employees' performance in achieving their goal and growth, dealing with the daily credit problems (Especially delinquency and defaulted loans),

Reduce the Liquidity Risk

The electronic payment services will be a warning sign to the Credit management to avoid: the inability to meet the expected and unexpected demands for loans. Offering enough loans to meet customers obligation. Reduce the risk f not making timely payments to customers. Reduce loan cycle and inefficiency of business processes.

Reduce the external criminal activities risk,

The Electronic payment services is a very secured method that prevent the Microfinance Institutions itself and its customers from the external criminal activities (EG: Theft, Terrorism, Vandalism and Loss of Cash through trickery). Instead of the customer will carry huge amount of disbursed loans they will receive it electronically though the Microfinance Electronic payment services (EG: Internal transfer to their created sub-bank account or/ through special disbursed Institution debit card that will be used in the microfinance institutions and ATM banks)

Individual Risks and Challenges that affect Implementation of the Electronic Payment Service by the Microfinance Institutions:

Security Concerns:

Virus attacks of the systems

Hackers who access and retrieve confidential information

Online fraud

Unauthorized access to personal client's information

Infrastructure challenges:

Limited Electronic payments services/ products

Lack of common technology standards between service providers

Limited internet connectivity

Lack of electricity

Unreliable telecommunication connectivity

Slowness of Electronic payments services.

Policy issues:

Insufficient laws on e-money laundering

Insufficient supervision of e-money institutions by supervisory authorities

Lack of clear policies on consumer and data protection

Lack of clear policies and laws on cooperation and competition issues

Lack of clear laws on participation

Insufficient laws on electronic contracts and digital signatures

Target Customers:

Lack of customer awareness on electronic payments

Resistance to new payment mechanisms by customers

Fear of losing money by the customers

Customer security concerns related to disclosed of private information

Customer tendency to be content with the existing structures

Customer fear of counterfeiting and illegal alteration of payment.

Important of technology on the Microfinance Institution's customers and employees:

There is a positive relation between the utilization of technology and the employee's productivity. The technology can increase the productivity, save the time, reduce the workload, control mistakes and frauds of the employees. Technology can support the rapid access to the information for the staff to provide high quality of financial services.

However, the Microfinance institutions which implement new technology systems (Like Electronic payments services) should provide proper training to its employees; it will increase their performance. Similarly, all the prerequisites should be executed before starting the implementation process; failure to which could result in poor performance as well as bad customer service. The Microfinance institutions must adopt in lack of knowledge, poor decisions and ultimately new practices and new technologies. They must modify business failure. To compete efficiently and to remain in traditional way of doing work.

Based on the importance of the digitalization in the microfinance sector, the microfinance institutions is needed to involve more digital tools in its digitalization strategies that will be divided into digital transformation objectives.

After setting up the general strategy of the digitalization, there are lot of strategic objectives that will put this strategy into action; the first Strategic objective is to digitalize the operations, it should all the process of the operation faster, more efficiency and cheaper than the manual operations. The digitalization is contributing to reduce the process costs of providing the financial services by the financial institution.

The second strategic objective is the digitalization of the products and services of the financial institution. The financial institution is needed to adopt its products and develop it in flexible procedures with the new demand of its clients before it will be digitalized.

The third strategic objective is to form a digital platforms and channels to improve the utilization experiences from the clients. Clients is preferring the self-services technology platforms.

Now we have an important question: Does the microfinance Institutions have to digitalize its services and products in order not to disappear in the future?

In fact the microfinance institutions are facing a critical threat from digitalizing its services and products. Because most of the fintechs are reducing the traditional financial services markets by developing a new financial services that are more efficient and able to reach more clients by Microfinance Institutions. The microfinance institutions must support the digital transformation. The microfinance institutions should work closely with the fintechs to deliver demand-driven digital financial services. The microfinance institutions should work through its staff and to provide the socioeconomical support to its clients.

The digital solutions offer the opportunities to deliver faster, diversified financial and social services to the poor and low-income clients

In fact the microfinance institutions have a potential role and add value, since they have in depth information about their clients and the geographical areas that they operate.

The digital transformation can support the traditional microfinance institutions to deal with challenges such as high operating costs or risks.

In fact, digitalization in the financial inclusion market is not an option but it is necessity. One question remains though: how can microfinance providers digitalize intelligently and, above all responsibly?

In the last ten years, advance has had the chance to implement and test multiple digital technologies to improve the financial inclusion journey for its clients.

in Cote d'Ivio, the electronic mobile banking succeeded to reach savings account for more than 19,000 Cocoa farmers. The small holders' farmers succeeded to have access to schools fees loan products in 2018.

In Ghana, digital channels have especially increased account usage, with 33% of client interactions being made through the Advance USSD mobile banking service and an average of 4.3 transactions per month per active client.

Meanwhile, *in Cameroon*, the implementation of an agent network across the country has enabled Advance to offer to its clients more proximity and reduce congestion in branches.

Finally, this year *in Nigeria and Cambodia*, Advance subsidiaries are launching mobile applications allowing clients to manage all of their transactions instantly online. In Nigeria, mobile banking services will help grow the portfolio by an estimated 5% in 2020 to 10% per year from 2021.

This lessons have not been without challenges.

The use of electronic payment services channels could affect the employees career development of employees in microfinance sectors. In addition, the electronic payment channels will improve the customer satisfaction and reduce the need to attend in its branches. The employee of the microfinance is facing experience difficulties when the clients will deal with electronic payment services channels. For example: poor of infrastructure, and the lack of technical skills of the employees to manage the electronic Payment services channels.

In special study that measuring the effectiveness of the electronic payment services of Financial Performance (Including staff performance) of the microfinance institutions *in Niger in 2015.* The study examines the impact of the electronic payment services on the financial performance of microfinance institutions in Niger and Nigeria. The results of the study indicate the presence of electronic payment services (ATM facility, debit & credit cards, internet banking and mobile banking) in the bank, which have an impressive acceptance. In addition, it was discovered that, ATM facility, Internet-based electronic payment services, Electronic payment cards (credit, debit, and ATM cards), and the internet banking platforms *have a good impact on the financial performance of the microfinance institution.* The findings of this study therefore *indicate that the implementation of electronic payment services s have a significant effect of the financial performance of microfinance institutions in the state.*

In Sudan there is studies reflects that there is a good relation between the use of electronic payment service at the banking and microfinance sector and job security.

Summary of sample studies from countries that using the electronic payments services Modules:

I. Adoption of the electronic payment services on the financial institutions:

Côte d'Ivoire Electronic payment Module:

USSD- Unstructured supplementary service data mobile banking solution Affected easy access to savings for cocoa farmers and getting benefited in 2018.

Ghana Electronic payment Module:

Advance USSD mobile banking service that Affected customers amount and number of transactions per active customers.

Nigeria and Cambodia Electronic payment Module:

launching mobile applications Affect clients to manage all their transactions instantly online.

II. Application of the electronic payments system on the financial institutions Employees performance:

Sudan Electronic payment Module:

The implementation of the electronic payment services at the microfinance sector and Microfinance Job security.

III. General International Electronic payment theories, modules and findings:

There is a relation between the innovative tools from technology in the banking and nonbanking financial institutions, and the increase the speed of operation, communication, management decisions, offer a competitive advantage and promotional opportunities (Mutuku & Nyaribo, 2015 Theory).

Atiku et al (2011) studied the effectiveness of electronic payment services on employees' job security of *Nigeria banks.* Result shows that using ATMs and other payment services support the employees' job stability.

Shirzadi, et.al, (2017), conducted a study and it finds that the use of electronic payment services, like telephone bank and electronic payment services affects the job stability and decreases job security

Conclusion

Electronic payment services could be attractive tool for the Microfinance institution's customers and increase the performance of the microfinance Institution and could be a tool to increase both customer and employee turnover if it will not be used effectively and efficiency.

Microfinance Institutions have to respond to customers' needs by adapting and utilizing the technological advancements opportunities.

The Electronic payment services are offering by third partite FinTech firm, unfortunately the FinTech firms is not providing the electronic payment services that match with the demands of the customers' needs regarding fees, maximum amount of the monthly transaction.

On-going staff training on Information Technology Management in sustainable plan in different levels of hiring and career development strategies (Recruitment, Career pathing and self-development).

the utilization of the electronic payment services is closely linked to the job security and employees' career enhancement. such transformation requires an effective human resources management, alignment of human resources strategies and policies to meet the needs of the financial institution in relation to reallocating human resources and employing staff. It is also noted that there is a literature gap where very few studies, if any, have discussed the impact of e-banking delivery channels on the staff job security and development in the banking sector.

The purpose of this research is to investigate the benefits and challenges of electronic payments channels and the effects of electronic payment services on the employees of microfinance Institution job security and development in the Egyptian Microfinance sector. So, this research is investigating the effects of Electronic payment services delivery channels on the job security and development of employees of the financial institutions' employees in Egypt.

Chapter Five:

OPERATIONALIZE THE VARIABLES

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Chapter Preface

This chapter describes the staff performance dimension and satisfaction definitions

In this section too there is a different between task staff performance and the contextual staff performance as literature background before getting n depth to analyze the individual microfinance staff work performance. In addition, this chapter will highlight the main KPIs of the Microfinance staff performance. This chapter will operationalize the electronic payment services, including the electronic payments different channels. The main players of the electronic payment system ecosystem and their relationship. In this chapter too, the research will start to identify the main problem statement, objectives, and the research hypothesis proposed by the researcher.

Staff Performance Dimensions and Satisfaction:

Staff performance is of utmost importance to all organizations and relates to the organizational strategic goals, client's satisfaction, and partners economic contributions (Bernardin et al., 1995). In the last forty years, the identification changed from focusing on only accomplishments of tasks mentioned in job description to encompassing a wider span of roles and behaviors that are needed for organizational efficiency and productivity (Griffin et al., 2007); and has become multi-dimensional (Bates and Holton III, 1995), with studies like Campbell et al. (1993) and Campbell et al. In a similar study, Smith (1976) defined performance as a collective actions and behaviors, and not only results obtained from actions. Murphy (1989) identify the performance as behaviors contributing to the organizational goals, focusing solely on results and might encourage employees to resort to unfair methods of result maximization. The measurable and controllable employee behaviors that were aligned with organizational goals could be identified as performance. Campbell (1990)

Task Staff performance:

The role of performance in system as meeting qualitative and quantitative performance standards Katz and Kahn (1978. Murphy (1989) defined task performance as the accomplishment of taska and responsibilities associated with a given job. Campbell (1990) defined the job-specific and non-job-specific task proficiency to encompass actions and behaviors to complete technical tasks. Williams and Anderson (1991).

Welbourne et al. (1998) defined the job role as quality and quantity of work output. Borman and Motowidlo (1993, p. 73) define the task performance as the efficiency of the employees to fulfill the job activity, that contribute to the organization technical core. either directly by implementing a part of its technological process, or indirectly by providing it with needed materials or services". In the dynamic business conditions, roles are evolving rapidly and that do not match the documentation process of these roles. It possible that the future job description will focus on the required competences rather than define the requested tasks to be done. Behaviors of employee that contribute to produce a product and services is the definition of task performance. Rotundo and Sackett (2002)

Contextual Staff Performance

Katz's (1964) described the non-task performance as second set of behaviors, including contextual performance. This section reviews the literature on contextual performance and highlights the similar and differences between them. Borman and Motowidlo (1993) differentiated contextual performance from task performance. Borman and Motowidlo (1997) defined that "Contextual activities include voluntary work to implement the activities which are not formally a part of the job, and helping and cooperating

Individual Microfinance Institution's staff performance is an important topic that not only has understood by the Microfinance Institutions worldwide, but also has inspired a great deal of research in field of Microfinance Initiation staff management. Numerous studies on individual Microfinance staff work performance have been conducted. However, different approaches of studying individual Microfinance staff work performance circulate in today's literature. Whereas the management field has priority with how the staff can be a productive employee, the field of microfinance industry focused on how to keep the productivity loss due to a certain change in the management systems (Eg: New environmental Technology). Work and organizational

psychologists, In addition, have an interest in the influence of determinants, such as work engagement, satisfaction, and personality, on individual microfinance staff work performance.
In all of the above-mentioned research field, the employee's work performance of the microfinance institution is a relevant outcome measure of studies in the occupational setting. However, despite its importance, no comprehensive conceptual framework of Microfinance staff work performance exists.

It has typically been assumed that what constitutes Microfinance staff work performance differs from job to job. As a result, countless measures of Microfinance staff work performance have been used.

So far, the assessment of *Microfinance institution's staff work performance* has primarily focused either on:

- Objective measures of work productivity (such as number of active clients per loan officer,
- Counts of specified acts "Rely on the customer adoption of the electronic payment system", or/
- Output maintained in organizational records) or/
- On subjective judgments of both quantity and quality of work from the employee him- or herself, peers or supervisors.

Sometimes these methods could provide a good information but sometimes these methods can't meet the complexity of the individual behavior which form work performance. So the question is still existed: what is the individual work performance consists of? it is just a construction. It can't be measured directly. It contains multi-components or dimensions. These dimensions consist of form an indicators which could be easy measured.

To set up an operationalization microfinance staff work performance; we should explicate the construct domain of work performance and identify its dimensions and indicators. Campbell has a definition of work performance is that of "behaviors or actions that are related to the organization goals". There are three concepts related to Campbell definition:
First: The work performance should be defined in terms of behavior rather than results. Second: The work performance includes only those behaviors that are relevant to the organization's goals, Third: The work performance is multidimensional.

It is difficult to differentiate between behavior and performance results. *Viswesvaran and Ones* identified the work performance as it is: procedures, and staff behavior and results able to be developed. All should be participated by the appraised staff to achieve the goals of their organization. It should differentiate between the work performance and the work productivity.

Work productivity is inputs divided by outputs. So the work productivity (very specific) is part of the work performance. There is another difference between the key performance indicators of the work performance and the casual variables. Level of work performance is the expected results from casual variables. while the key performance indicators are the reflection of the work performance itself. Job satisfaction is directly related to the work performance, while the quality of work is one of the indicators for the work performance.

KPIs-Key performance Indicators of the staff performance of Microfinance institutions:

- **Financial Metrics:**
  - Profit (Growth and net profit margins analysis)
  - Cost (Cost effectiveness – reduce and manage the work cost)
  - Actual and planned revenue
  - Production cost and selling. (Loan product expenses and selling)
  - Sales of loan product by target areas (Completely, partly or/ uncovered areas)
  - Expenses and Budget (overheads and forecasting budget)

- **Customers Metrics:**
  - Customer Lifetime factor: Ways to optimize the customer acquisition. Diversify channel to gain best customer for the Microfinance Institutions.
  - Customer Satisfaction and Retention: Customer satisfaction sector and percentage of customer repeating borrowing.
  - Net promoter Score: How customer will recommend the microfinance institution's products to others? Baseline between the 1st time measuring this indicator and the annual KPI of this factor.
  - Number of customers: In the best practice of the microfinance sector, number of customers is the main KPI and should not be less than 150-200 per each loan officer. Active customer gained or lost could be way to understand both customer needs and the performance of staff.
  - Customer Churn Rate: % of customer who repeat borrowing or not in certain period = Number of Customers lost in a giving period / Number of customers at the start of the period.
  - Contact Volume by channel: Tracking number of provided supports to staff by channels (Phone, Complain box, etc). Reflects which methods of customers are preferring to request the support from the Microfinance Institution?
  - Percentage of Customers who are (Very) or (Extremely) satisfied: good sign of customer satisfaction.

- **Process Metrics:**
  - *Customer support tickets:* Establishing a customer services function will rely to the customers' needs and problems. This will help too to resolve the customers problems and gain more customer satisfaction.
  - Percentage of loan product defects: Number of customers who didn't continue to borrow because of there is a defect in the loan product that not met their needs?
  - Loan Cycle efficiency: how the loan cycle process was affected positively or negatively before and after adoption of the electronic payment system?

- **Employees Metrics**
  - *Employee Turnover Rate*: how the implementation of the electronic payment services was affected the employee turnover rate? If the rate is high, examine the workplace, Culture, employment package, and work environment.
  - *Percentage of response to Open positions*: Increasing the staff looking for the high-level opened jobs inside the institution, is an indicator for their work satisfaction and loyalty.
  - *Employee Satisfaction*: Employees who will accepting work under pressure, accepting extra tasks and responsibilities, is an indicator for their satisfaction in their work.
  - *Retirement Rate*: Aging workforce is an important key indicator for the staff performance, its need to be planned.
  - *Knowledge achieved with training*: Track the effectiveness of the employee training. Post and pre-test of any provided training to the Microfinance Institution staff will clarify the progress of this item.
  - *Internal promotion Vs External hires*: How many staff working at the Microfinance Institution with considering of number of internal promoted employees and number of external hires. Measuring the organization succession plan.
  - *Salary competitiveness Ratio*: Competitiveness of Compensation options.

Operationalize the Electronic Payment Services

Operationalize the electronic payment services (Machines number of ATM, number of PoS) put it in the last place of electronic payment service chapter

Financial digital innovation is paving the way for Microfinance Initiations and the business of the customers to have access to better financial services through several channels:

1. *Reducing Costs and facilitating payments:* Digitizing payments have significantly expanded access and reduced costs for all users and especially for the financially excluded ones. Electronic Payment Services has reduced the costs of financial services by making it self-service or automated.

2. *Facilitating access to credit:* Electronic Payment Services has made it much easier to offer loans especially to the Bottom of the Pyramid group. Time and costs related to the loan applications have been reduced. The use of digital data analysis and machine learning for better assessment of existing structured and unstructured data sources (such as financial history, mobile usage data and ecommerce transaction data) have made it possible to expand credit access to the low-income customers and financially excluded small businesses.

3. *Enabling access to savings:* Electronic Payment Services solutions has made it also easier to gain an access to deposit and investment products by eliminating the high monetary (i.e. minimum-balance requirements and related fees to open an account) and non-monetary (i.e. geographic distance from a bank branch) costs that prevent individuals and businesses from opening deposit accounts.

4. *Enabling access to insurance:* Electronic Payment Services enables the financially excluded segment by enabling them to gain an access to tailored insurance products that match their specific conditions and needs (i.e. insurance services via mobile apps, ensuring automobiles, electronics, crops, micro and small businesses).

The electronic Payment Services ecosystem involves four main players. that are all working together to achieve the financial inclusion objectives and the stability and integrity of the national financial systems. Explained that the four main players of the Electronic Payment

Services ecosystem are market users, market services providers, ITCs infrastructures, and government:

1. ***Market users***: Include all kind of users like consumers, businesses, governmental agencies and non-profit organizations who have needs for electronic payment services and financial products and services.
2. ***Market services providers***: Include all kind of Electronic Payment Services providers like commercial banks, other Microfinance institutions, and non-banks (i.e., Fintech companies) who supply those products and services through digital means.
3. ***ITCs infrastructures***: All the needed ITCs infrastructures (financial, technical, and other infrastructures) that make the provision of Electronic Payment Services faster, easier, cheaper, and secure of any fraud or cybercrimes.
4. **Government:** Includes governmental policies, laws and regulations which set up the rules of the play in the market to ensure that Electronic Payment Services are provided in an inclusive, accessible, affordable, and safe manner and that they are serving the sustainable development strategy.

Research Problem:

Monetary policy makers represented in Central Banks should play a pivotal role in endorsing financial inclusion because of the positive outcomes such as financial stability and price stability achieved through having an inclusive financial system (Blancher, 2019). In 2013, CBE-Central Bank of Egypt joined the membership of AFI-Alliance for Financial Inclusion which has given CBE the privilege to learn and benefit from the international experiences of the FI-Financial Institution in other countries. CBE has committed in achieving progress in terms of FI that touches upon different dimensions that include e-money, women's financial inclusion, electronic payment Systems, SME-Small and Medium Enterprise finance, and National Payment Systems (Nasr et al., 2018). CBE-Central Bank of Egypt issued a "Financial Stability Report" in 2018 that explained the different dimensions that were pursued in an attempt to achieve FI. The first step that the CBE made was establishing a financial inclusion unit within CBE where the unit's mandate and role include coordinate the FI policies with different stakeholders as well as setting the key performance indicators to measure level of FI periodically (CBE, 2018).

In Egypt the implementation of *electronic Payment Service* delivery channels has grown especially after Covid 19 pandemic. As per the declaration of the Egyptian information and decision support center of the Egyptian Cabinet revealed a significant increase in the confidence of Egyptians in using various digital payments methods, including contactless cards, mobile phone wallets, and QR code payments, due to the speed, ease and convenience of use provided by these means. As part of the process of financial inclusion and digital transformation adopted by the Egyptian government, the central bank of Egypt launched during the last period several initiatives that support digitization and financial inclusion. The results of an opinion poll conducted by the Banking Institute of the central bank of Egypt indicated that 9 out of 10 consumers increased their confidence in digital payments in Egypt, with a decrease of 85% in the rate of completing cash transactions during the outbreak of Covid 19 virus, compared to an increase of about 60% in using digital payments for online and on-delivery payments. According to the survey results, 74% of consumers continue to use contactless payment methods, and 76% will continue to shop online, considering the continued decline in cash transactions, and their failure to return to levels before Covid-19 pandemic.

The conclusion of the exploratory research and through the investigation of the published academic literature, the practical best practices, the announced global reports, and various studies performed by researchers, academicians and practitioners, the researcher has reached the following conclusions.

- Most of the research focused on measuring the positive relation between the electronic payment services and the customers satisfaction.
- Most of the literatures, and research focused only on the banking electronic payment sector and the employee's performance of Microfinance institutions is non-banking entity, with lack of studies on the subsequences of the using of the electronic payments services and the employee's performance of the microfinance institution.
- Staff performance at the microfinance institution is a small area to be study in research, comparing with the whole performance of the microfinance institution itself, so In-light of the above.

This research aims to assess "*The relationship between the electronic payment services adoption and the Microfinance Institution staff performance at the microfinance in Egypt - (Case study of REDEC Qena -Microfinance Institution in Egypt)*

The research will apply type of interviews and observational research that the data analyses of variables collected in time across a sample employee in different managerial levels (Executive, Mid and Top levels).

Shaukat and Zafarullah, 2019 employees are able to produce more because new technology enables them to perform multitask. The research thesis will prove the multitasks duties of the executive field staff at the microfinance institution will be affected or not? The results of non-studying the multi tasks of the executive field staff at the time of applying the Electronic payment technology will end-result with lot of financial performance problems. Even the research should review the relation between the executive field staff and the customer of the Microfinance institution. The research will study the role of electronic payment literacy training to the employees. Who will do this training? When? Indicators to measure the results of this training.

From the literature review, there is a relation between the increase of the employee's motivation and morale with the institutions investment in the technology (Dauda and Akingbade , 2011). It

will decrease the turnover level and will motivate the employees towards innovations. The research should prove that the sudden use of the technology including the Electronic payment services will increase the employee's turnover as they will not cope with the technology adoption and changes in the organization.

Research Questions:

There is hidden gap between the implementation of electronic payment services the employee's performance of the Microfinance Institution. The research will find out the answers on following questions, that were categorized into three Factors:

1. *Microfinance Institution's Employee Turnover.*
2. *Microfinance Institution's Employee Satisfaction.*
3. *Staff Knowledge and development.*

Chapter Six:

Research Methodology

Chapter Six: Research Methodology

Chapter Preface

This chapter describes the research methodology that include, and the chapter provides the research proposed conceptual model along with the model components.

Including the independent, dependent, and moderating variables. This chapter will study the main 2 hypothesis. In addition, this chapter will review the population and sample size in addition to the recommended questions.

Research Model:

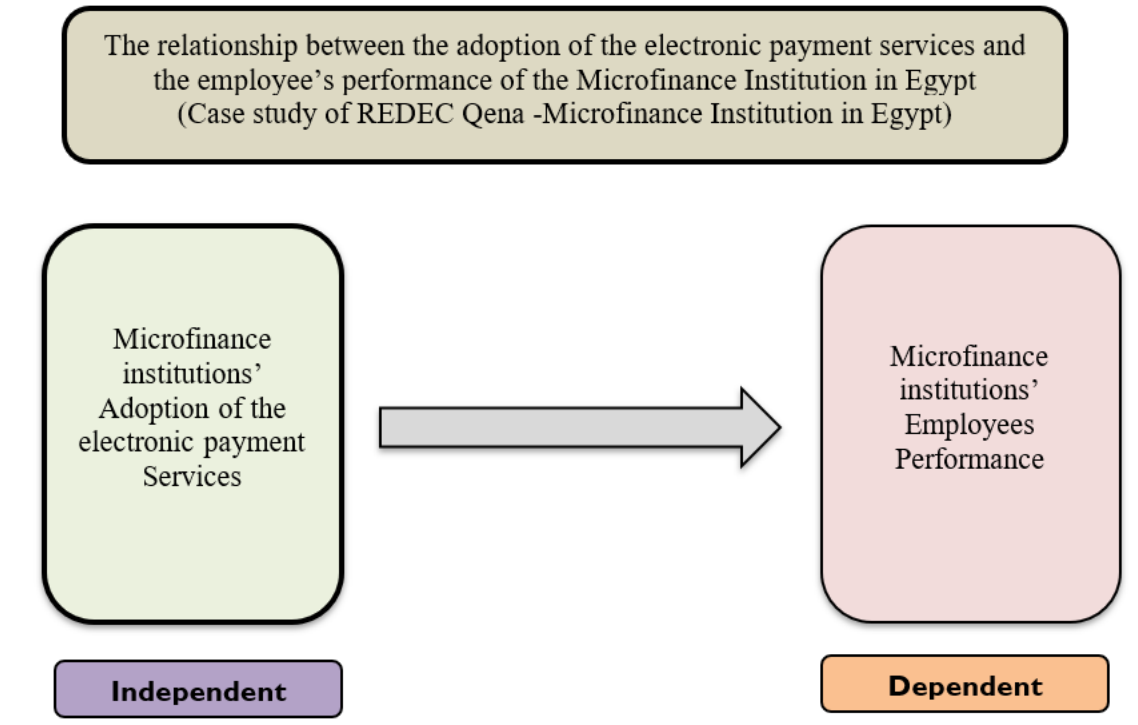


Figure 9- Diagram the Research model and variables (the dependent & independent variables)

I-Independent variable:

REDEC Qena Microfinance Institution's adoption of the electronic payments Services

The research operationalization plan will measure the Microfinance Institution's adoption of the electronic payments' services - independent variable as follow:

1. ***Acceptance factor:***
   - Does the electronic payment services is fully accepted by the customers?
   - Do the electronic payment services is able to allow refunds?
   - Do the electronic payment services trace back the transaction, particularly in the case of illegal activities?
   - Do the electronic payment services is convenient as cash to use on any time?
   - Does the charges of the electronic payment services is associated with the customers?
   - Who are the main parties involved with Internet payment systems?

2. ***Accessibility factor:***
   - Does the electronic payment services is easily accessible with the users?
   - What is the quality of the provided electronic payment services?
   - How is the flexibility of electronic payment services to the microfinance institution?
   - How is the electronic payment facilities, for easy accessibility?
   - What is the status of the increase of transfer/transaction limits on certain electronic payment platforms?

3. ***Security:***
   - How is the creation of awareness and sensitization of customers on the implementation of electronic payment systems?
   - Is the electronic payment services appropriate to build the confidence of users on the systems?
   - What are the existed possibilities to improve and review of electronic payment platforms' security?
   - What is the current awareness of the use of the platforms as well as sensitization of potential users?
   - Does the microfinance institution can maintain public confidence to ensure customer privacy?

- Does the microfinance institution can protect the details of transactions and customers from internal and external fraud/criminal usage?

II- Dependent Variable:

REDEC Qena Microfinance institutions' Employees Performance

the implementation of electronic payment services has an effect of the Employees Performance of microfinance institutions. The following is the operationalization of the main factors that related to the REDEC Qena Microfinance initiation's employee's performance:

1. ***Microfinance Institution's Employee Turnover***:
   - Will the electronic payment services make the Microfinance Institution's jobs irrelevant to its' Employees in their knowledge and skills in the electronic payments systems?
   - What is the relationship evidence between employees' turnover and the applying of the electronic payment technology and systems?
   - What is the Microfinance institution's employees' challenges that affect the adaptation and the implementation of the electronic payment services?
   - What is the quality of work for the Microfinance institution employees (including work end-results, efficiency, staff productivity), after applying the Electronic payment services in the institution?
   - How is Microfinance Institution's employees tracking and solving their work problems after adopting the electronic payment s services? What is the MF's employee's workload to the partially and no electronic payment repayments from the customers? What are the subsequences on the operation and the employee's workload and performance of E-paying in advance of the customers installments?

2. ***Microfinance Institution's Employee Satisfaction***
   - There is a decreasing and or/ increasing in staff performance of the Microfinance Institution and the implementation of the Electronic Payment System?
   - What is the list of the employees' individual challenges that affect the adaptation and the implementation of the electronic payment services in the Microfinance Institution?

- The factors that influence the organization performance (including employees' performance), EG: Staff experiences, Education, gender, age, new roles, and responsibilities?
- Find out the important of employee's career pathing strategic objective at the institution after the adaptation of the Electronic payment services and the technology changes in the institution?
- Do the employees will accept the Electronic payment services at the Microfinance institution as a new noncash payment tech-culture?
- How often electronic payment services reduced or increased the workload of the empployees of the microfinance Institution. This is including: Loan Disbursement Tracking, Loan Repayment Tracking, Repayment & Loan Disbursement problem solving?
- How has the electronic payment services led to change in working hours?
- How has the electronic payment service led to reduction in processing of work?
- How has the electronic payment service led to Employee productivity?
- How has the electronic payment service led to help Management and decision-making processes?

3. ***Staff Knowledge and development.***

- What is the electronic payment literacy received training by the employees of the organization?
- The factors that influence the organization performance (including employees' performance), EG: Staff experiences, Education, gender, age, new roles, and responsibilities.
- What is the role of electronic payment literacy training to increase the employee's performance of the organization? Who will do this training? When?

Research Methodology:

Hypotheses

As the Research Problem is the implementation of electronic payment services will affect the employee's performance of the Microfinance institution.

H_0 (The null hypothesis): μ (the adoption of the electronic secrecies) = (is affecting the employee's performance of the employees).

H_1 (The alternate hypothesis): μ (the adoption of the electronic secrecies) ≠ (is not affecting the employee's performance of the employees).

It is expected that the employee's performance of the microfinance institution will be greater with the implementation of electronic payment services.

Research Design

- The research will be implemented at one case study sample from the Microfinance institutions in Egypt (REDEC Qena Governorate in Egypt)
- Number of REDEC Qena Microfinance Institution's staff is 135 – The research will target 101 representable staff sample from the 3 managerial levels (top management level staff, Mid-Level Staff and Executive field Staff). Sample form the Executive Staff (Loan Officers, Management Information System Officer) - Sample from the Mid-Level Staff (Branch Manager, Senior Loan Officer and Internal Branch auditor) - Sample from the Top Management Staff (Executive Director, Financial Manager, Operation Manager and Internal Auditing Manager).
- The research type will use both the correlation (Between different managerial levels of the microfinance institutions, and casual- comparative (To identify the pre-main causes of the research problem).
- The time horizon and cross-sectional study in the research will be measured in certain time after utilizing the electronic payment service (September 2021) to the customers of the Microfinance Institution.
- Data type, Case study (REDEC Qena Egypt) from the Microfinance institutions in Egypt, primary (Through the survey) and secondary data (Literature and reports such as tum over data). Data relation is correlation
- Study type: Field Study and the research interference is minimal
- The research will apply type of observations and data analyses of collected variables at given time across a sample population (Electronic Payment Service and the Microfinance Institution's staff).
- The research will collect qualitative data (Non-numerical) from the Literature review and secondary source of data (Similar case studies related to the theme of the research). The qualitative analysis result will obtain: The relation between the implementation of the electronic payment services on the employee's performance of the Microfinance institution. In Addition, the Qualitative analysis will identify the exact Microfinance institution Employees performance that the research will focus on direct staff performance indicators (Eg, Problem solving, Risk Mitigation, ect).

- The time horizon study in the research will be measured in certain time after adopting the Electronic payment services that will be provided by third patriate to the clients of the Microfinance Institution. The case study of one of the microfinance institutions in Egypt (REDEC Qena) will be the best one to focus on gathering the data one time within a period of days. The research will apply, type of observations and data analyses of collected variables at given time across a sample population (Microfinance Institutions employees in different managerial and operational level). Unites of analysis will be: Individual, in three different managerial levels at the selected Microfinance institutions. Investigation Type: Correlation study.

Research measures

The following table will indicate the situation of the financial services that provided by the microfinance institution, the target customers and their business, the customers point of view on the duration of the electronic payment services was implemented, due to the difference in the years of joining the microfinance institution, as well as the difference in customers' view of what constitutes electronic payment services.

Statistical tools and techniques used

This study used SPSS to verify if there is relationship between the electronic payment services and the staff performance of REDEC Qena Microfinance Institution.

Population, Sample Data Collection method

The study used pen-paper survey (The paper-pencil survey is a classic survey method used in market and employee research**)** to collect data from 101 executives in managerial positions (Total Number of the Microfinance Institution's staff is 135 and the sample is 101 staff)

Sample Type is: Stratified Sample

Table 4- List of all participated managerial level at REDEC Qena Microfinance Institution

Manager Level	Designations
Senior Management Level	Executive Director
	Internal Auditing Manager
	Operation Manager
	Financial Manager
	Senior Financial Manager
Middle Management Leve	Branch Managers
	Senior Loan Officers
	Branch internal Auditor
Officer Level	Loan Officer
	Branch Information Officer

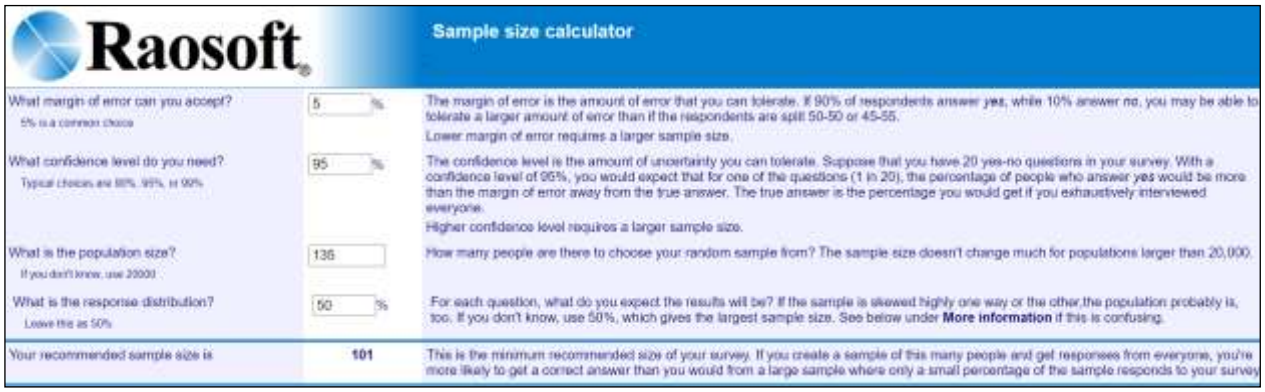


Figure 10- Sample size calculator by Raosoft

Empirical data analysis:

The research study used and *Advanced Analysis (Linear Regression)* This analysis is used to predict the value of the dependent variable through a set of independent variables.

Study hypotheses:

The null hypothesis H0:

It is that the regression model is not significant, meaning that the independent variables (*the adoption of the electronic payment services at the microfinance institution*) do not affect the dependent variable (*the employees' performance of the microfinance institution*).

Alternative Hypothesis H1:

It is that the regression model is significant, meaning that the independent variables (*the adoption of the electronic payment services at the microfinance institution*) affect the dependent variables (*the employees' performance of the microfinance institution*).

Finding

First: the results of analyzing the general characteristics of the sample that was studied.

Table 5-REDEC Qena sample (Managerial Level Analysis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Top Management	5	7.8	7.8	7.8
	Mid-Management	11	17.2	17.2	25.0
	Field Executive management	48	75.0	75.0	100.0
	Total	64	100.0	100.0	

Table 6-REDEC Qena sample (Gender Analysis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	41	64.1	64.1	64.1
	Female	23	35.9	35.9	100.0
	Total	64	100.0	100.0	

Table 7 - REDEC Qena sample (Education Analysis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary	17	26.6	26.6	26.6
	BSc. University	44	68.8	68.8	95.3
	High Studies	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 8 - REDEC Qena sample (Job positions Analysis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive Manger	1	1.6	1.6	1.6
	Financial Manager	1	1.6	1.6	3.1
	Teller	1	1.6	1.6	4.7
	Accountant	1	1.6	1.6	6.3
	Head of internal Audit	1	1.6	1.6	7.8
	Head of HR	1	1.6	1.6	9.4
	Head of Operation	1	1.6	1.6	10.9
	Branch Mangar	6	9.4	9.4	20.3
	Internal Audit Officer	1	1.6	1.6	21.9
	Legal Officer	1	1.6	1.6	23.4
	Loan Officer	40	62.5	62.5	85.9
	Senior Loan Officer	2	3.1	3.1	89.1
	Loan Officer	4	6.3	6.3	95.3
	Deputy Branch manager	1	1.6	1.6	96.9
	MIS Officer	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Through the study of the statistical group of REDEC Qena Financial Institution's REDEC Qena Financial Institution, the study was applied to a total of 64 employees of REDEC Qena Financial Institution out of a total of 211 employees (representing 32% of the total employees of the establishment). Senior management represents 7.8% (total of 5 employees), middle management percentage of 17.2% (total of 11 employees), and field executive management at 75% (total of 48 employees). Female employees represent 35.9% of the sample (23 employees) and men 64.1% (41 employees). University education for employees represents 68.8% (44 employees), secondary education is 26.6% (17 employees), while employees with graduate and master's studies represent

4.7% (3 employees). Number of years of experience at the microfinance institution represented an important element, as most of the years of experience of the corresponding employees reached 26.6% with 3 years of experience (17 employees), 15.6% of employees with two years of experience (10 employees) and 7.8% of employees with one year of experience in the organization (5 employees) employees), while the rest of the employees have years of experience ranging from 4-21 years in the institution.

There are 78.1% of the microfinance institution's employees whose performance is evaluated periodically once every three months (50 employees), while some employees are evaluated once a year at a rate of 20.3% (13 employees). 18.8% of employees got an excellent rating in their last performance evaluation (12 employees), while 39.1% of employees got a very good rating in their last performance evaluation (25 employees).

First: The independent variable analysis results: Electronic Payment Services Factors

1.1 - Analysis results of the acceptance factor:

Table 9-Acceptance Factor Analysis – Electronic payment Service acceptance

9. Does the Electronic payment Services is fully accepted by the customers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	32	50.0	50.0	50.0
	Partially agree	25	39.1	39.1	89.1
	Not Agree	7	10.9	10.9	100.0
	Total	64	100.0	100.0	

Table 10-Acceptance Factor Analysis – Electronic payment Service easy refundable

10. Do the Electronic payment services is able to allow refunds?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	52	81.3	81.3	81.3
	Partially agree	9	14.1	14.1	95.3
	Not Agree	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 11-Acceptance Factor Analysis – Electronic payment Service easy traceability

11. Do the Electronic payment services trace back the transaction, particularly in the case of illegal activities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	50	78.1	78.1	78.1
	Partially agree	3	4.7	4.7	82.8
	Not Agree	11	17.2	17.2	100.0
	Total	64	100.0	100.0	

Table 12-Acceptance Factor Analysis – Electronic payment Service easy on time use

12. Do the Electronic payment services is convenient as cash to use on any time?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	61	95.3	95.3	95.3
	Partially agree	2	3.1	3.1	98.4
	Not Agree	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

Table 13-Acceptance Factor Analysis–Electronic payment Service customer associated

13. Does the charges of the Electronic payment services is associated with the customers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	33	51.6	51.6	51.6
	Partially agree	24	37.5	37.5	89.1
	Not Agree	7	10.9	10.9	100.0
	Total	64	100.0	100.0	

89.1% of employees assert that customers fully or somewhat accept the electronic payment services provided to them. It also fully confirms, employees of the institution with a percentage of 95.4% (a total of 61 employees) that the electronic payment services allow the recovery of money. And 82.8% of employees fully or to some extent confirm that the electronic payment services allow tracking financial transactions, especially in the illegal activities of customers (such as the deliberate delay in the payment of financing installments). While a significant number of the institution's employees do not agree with this factor, at a rate of 17.2% (11 employees). And 95.3% of the institution's employees (61 employees) confirmed that electronic payment services (withdrawal and deposit) are available to the institution's clients at any time. It also notes that 89.1% of the institution's employees (57 employees) fully or

somewhat confirm the acceptance of the institution's clients to bear the cost of using the institution's digital financial services.

1.2. Analyze results of the accessibility factor:

Table 14-Accessibility Factor Analysis–Electronic payment Service is accessible

14. Does the Electronic payment services is easily accessible with the users?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	55	85.9	85.9	85.9
	Partially agree	9	14.1	14.1	100.0
	Total	64	100.0	100.0	

Table 15-Accessibility Factor Analysis–Electronic payment Service is high quality

15. Does the provision is high quality for the Electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	53	82.8	82.8	82.8
	Partially agree	11	17.2	17.2	100.0
	Total	64	100.0	100.0	

Table 16-Accessibility Factor Analysis–Electronic payment Service is flexible.

16. Is the Electronic payment is flexible to the microfinance institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	58	90.6	90.6	90.6
	Partially agree	5	7.8	7.8	98.4
	Not Agree	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

Table 17-Accessibility Factor Analysis–E-payment Service & withdraw

17. Do you have max limit for cash withdraw by the Electronic payment Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	58	90.6	90.6	90.6
	Partially agree	2	3.1	3.1	93.8
	Not Agree	4	6.3	6.3	100.0
	Total	64	100.0	100.0	

Table 18-Accessibility Factor Analysis–E-payment Service & Deposit Limitation

18. Do you have max limit for cash deposit/payment by the Electronic payment Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	48	75.0	75.0	75.0
	Partially agree	3	4.7	4.7	79.7
	Not Agree	13	20.3	20.3	100.0
	Total	64	100.0	100.0	

89.9% of the institution's employees (55 employees) confirm that the electronic financial payment services easily reach the institution's customers, and 82.8% (53 employees in the institution) confirm that the electronic financial payment services are of high quality in terms of time, availability, and ease of access for its users. 75% of employees (48 employees) stated, there is a maximum daily deposit limit using the electronic financial payment methods available to customers, and 90.6% of the employees (58 employees) confirmed, there is a maximum daily withdrawal limit using the electronic financial payment methods available to customers.

1.2 Analysis results of the Security factor:

Table 19-Security Factor Analysis–E-payment Service & customer awareness

19. Does the customers have enough awareness and sensitization on the implementation of the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	39	60.9	60.9	60.9
	Partially agree	22	34.4	34.4	95.3
	Not Agree	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 20 - Security Factor Analysis–E-payment Service providing customer awareness.

20. Is the financial institution is providing the appropriate awareness to build the confidence of users on the Electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	60	93.8	93.8	93.8
	Partially agree	4	6.3	6.3	100.0
	Total	64	100.0	100.0	

Table 21 - Security Factor Analysis–E-payment Service & customer trusting

21. Is the customer of the institution is trusting on the provided electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	38	59.4	59.4	59.4
	Partially agree	23	35.9	35.9	95.3
	Not Agree	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 22 - Security Factor Analysis–E-payment Service & customer privacy

22. Does the microfinance institution can maintain public confidence to ensure customer privacy?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	60	93.8	93.8	93.8
	Partially agree	3	4.7	4.7	98.4
	Not Agree	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

Table 23 - Security Factor Analysis–E-payment Service & fraud/criminal usage protection.

23. Does the microfinance institution can protect the details of transactions and customers from internal and external fraud/criminal usage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	61	95.3	95.3	95.3
	Partially agree	2	3.1	3.1	98.4
	Not Agree	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

95.3% of employees (61 employees) fully or partially confirmed that customers have sufficient or partial awareness about electronic financial payment services. 100% of the institution's employees (64 employees) fully or partially confirm that the institution provides its customers with adequate awareness about the safe implementation of electronic payment services. And 95.3% of the institution's employees (61 employees) fully or partially confirm the confidence of their customers in the digital financial payment services provided to them. And 98.5% of the institution's employees (63 employees) fully or partially stated the institution's ability to ensure the preservation of the privacy of customer data in light of the use of the institution's electronic financial payment systems. 98.4% of the Corporation's employees (63 employees) fully or partially admitted the Corporation's ability to protect the details and data of its customers against internal and external fraud in light of their use of electronic financial payment services.

Second: The analysis results of the dependent variable: The Employees' Performance of the Financial Institution.

2.1. Employee's turnover factor:

Table 24 - Turnover Factor Analysis–E-payment Service & job irrelevant.

24. Will the electronic payment services make the Microfinance Institution's jobs irrelevant to its' Employees in their knowledge and skills in the electronic payments systems?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	51	79.7	79.7	79.7
	Partially agree	10	15.6	15.6	95.3
	Not Agree	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 25- Turnover Factor Analysis–E-payment Service & turnover reason evidence.

25. Is there relationship evidence between employees' turnover and the current adoption of the Electronic payment technology and services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Partially agree	1	1.6	1.6	1.6
	Not Agree	63	98.4	98.4	100.0
	Total	64	100.0	100.0	

Table 26 - Turnover Factor Analysis–E-payment Service & staff challenges.

26. Is the institution's employees' is facing a challenges that affect the adaptation and the implementation of the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	29	45.3	45.3	45.3
	Partially agree	13	20.3	20.3	65.6
	Not Agree	22	34.4	34.4	100.0
	Total	64	100.0	100.0	

Table 27 - Turnover Factor Analysis–E-payment Service & staff quality of work

27. Is the quality of work end results for the institution's employee was improved, after applying the Electronic payment services in the institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	51	79.7	79.7	79.7
	Partially agree	11	17.2	17.2	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 28 - Turnover Factor Analysis–E-payment Service & staff quality of efficiency

28. Is the quality of efficiency for the institution's employee was improved, after applying the Electronic payment services in the institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	52	81.3	81.3	81.3
	Partially agree	10	15.6	15.6	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 29 - Turnover Factor Analysis–E-payment Service staff quality of Productivity

29. Is the quality of productivity for the institution's employee was improved, after applying the Electronic payment services in the institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	51	79.7	79.7	79.7
	Partially agree	11	17.2	17.2	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 30 - Turnover Factor Analysis–E-payment Service staff easy track their problems.

30. Is The Institution's employees tracking and solving their work problems after adopting the Electronic payments services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	53	82.8	82.8	82.8
	Partially agree	8	12.5	12.5	95.3
	Not Agree	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 31 - Turnover Factor Analysis–E-payment Service staff workload reducing.

31.Is the Initiation's employee's workload were reduced after the implementation of the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	35	54.7	54.7	54.7
	Partially agree	10	15.6	15.6	70.3
	Not Agree	19	29.7	29.7	100.0
	Total	64	100.0	100.0	

95.1% of the institution's employees (61 employees) admitted, that the institution's employees have the skills and knowledge that qualifies them to implement the electronic payment services in the institution. Also, 98.4% of employees (63 employees) stated that the rate of resignations and transfers between departments of the employees of the institution was not affected by the application of digital financial payments services. The employees' opinion varied on the institution's employees facing challenges during the application of electronic payment services, as 65.6% of the employees (42 employees from the sample) agreed, while 34.4% of the employees did not agree with this (a total of 22 employees from the sample). 96.9% of the employees (62 employees in the sample) fully or partially confirmed that the efficiency, effectiveness, and productivity of the employees have increased significantly after the application of electronic payment services. 95.3% of the employees (61 employees from the sample) fully or partially admitted that the application of electronic payment services has helped the institution to easily discover problems related to the financing operations of customers. 70.1% of the employees (45 employees from the sample) fully and partially showed that the institution's electronic payment systems have reduced the job burden on the institution's employees, while 29.7% of the employees (19 employees from the sample) admitted that the application of electronic payment in the institution has increased the job burden as a result To increase awareness of the institution's customers about these new services.

2.2 The employee satisfaction factor:

Table 32 - Staff Satisfaction Factor Analysis–E-payment & Staff performance Satisfaction

Q31: Are you satisfied with your performance after adopting the electronic payment services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	51	79.7	79.7	79.7
	Partially agree	11	17.2	17.2	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 33 - Staff Satisfaction Factor Analysis–E-payment & Staff Satisfaction on his/her institution's system.

Q32: Are you satisfied with the system that your institutions is follow to adopt the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	50	78.1	78.1	78.1
	Partially agree	12	18.8	18.8	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 34 - Staff Satisfaction Factor Analysis–E-payment & Staff Satisfaction on his/her institution to manage its related problem

Q33: Are you satisfied with the way that your institution is followed to manage the problems that facing the implementation of the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	53	82.8	82.8	82.8
	Partially agree	9	14.1	14.1	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 35 - Staff Satisfaction Factor Analysis–E-payment & Staff changes in their future career.

Q34: Does your future career development had been changed because of the implementation of the electronic payment services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	34	53.1	53.1	53.1
	Partially agree	7	10.9	10.9	64.1
	Not Agree	23	35.9	35.9	100.0
	Total	64	100.0	100.0	

Table 36 - Staff Satisfaction Factor Analysis–E-payment & Staff accept the new culture of E-payment

Q35: Do the employees will accept the electronic payment services at the Microfinance institution as a new noncash payment tech-culture?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	60	93.8	93.8	93.8
	Partially agree	3	4.7	4.7	98.4
	Not Agree	1	1.6	1.6	100.0
	Total	64	100.0	100.0	

Table 37 - Staff Satisfaction Factor Analysis–E-payment & Staff working hours changes

Q36: Is the electronic payment services led to change in working hours in the institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	19	29.7	29.7	29.7
	Partially agree	20	31.3	31.3	60.9
	Not Agree	25	39.1	39.1	100.0
	Total	64	100.0	100.0	

Table 38 - Staff Satisfaction Factor Analysis–E-payment & reducing the working steps

Q37: Is the electronic payment services led to reduction in processing of work in the institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	29	45.3	45.3	45.3
	Partially agree	18	28.1	28.1	73.4
	Not Agree	17	26.6	26.6	100.0
	Total	64	100.0	100.0	

Table 39 - Staff Satisfaction Factor Analysis–E-payment & helped the decision-making process

Q38: Is the electronic payment services led to help Management and decision-making processes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	42	65.6	65.6	65.6
	Partially agree	16	25.0	25.0	90.6
	Not Agree	6	9.4	9.4	100.0
	Total	64	100.0	100.0	

96.9% of the employees (62 employees from the sample) were fully or partially satisfied with what the institution follows in the application of electronic financial payment services. The same percentage and number were completely and partially satisfied with the way the institution is managed to solve the problems facing the application of electronic financial payment services with its customers. 64% (41 employees from the sample) fully or partially confirmed that the application of electronic payment services didn't affect their future job goal, while it was noticed that 35.9% of employees (23 employees from the sample) had changed their future job goal for the better because of applying the electronic payment services of the microfinance institution. Most employees with a percentage of 98.5% (63 employees from the sample) fully and partially confirmed their acceptance of the culture of the electronic payment services applied in the institution. 61% of the returnees (39 employees from the sample) expressed, that the electronic payment services applied in the institution has led to a change in working hours. While it was

noted that 39.1% of the employees (a total of 25 employees from the sample) believed that the implementation of the electronic payment service did not affect the work hours in the institution. 73.4% of the employees (67 employees from the sample) fully or partially confirmed that the implementation of the of the electronic payment service has contributed to reducing their work steps. In addition, 26.6% of the employees (17 employees in the sample) expressed their opinion that the implementation of the electronic payment services in the institution did not affect the steps involved in working with them. While 90.6% of the employees (a total of 58 employees from the sample) fully and partially confirmed that the application of electronic payment services in the institution has led to the acceleration of the administrative process and assistance in making the administrative decision effectively and quickly.

2.3 Factor knowledge and skill development for employees:

Table 40 - Staff knowledge & Skills Factor Analysis–E-payment & Staff received training

Q39: Did you receive any type of Financial Electronic Payment education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	13	20.3	20.3	20.3
	Partially agree	38	59.4	59.4	79.7
	Not Agree	13	20.3	20.3	100.0
	Total	64	100.0	100.0	

Table 41 - Staff knowledge & Skills Factor Analysis–E-payment & Staff self-training

Q40: Did you improve your electronic payment knowledge and skills personally by yourself?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	11	17.2	17.2	17.2
	Partially agree	51	79.7	79.7	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 42 - Staff knowledge & Skills Factor Analysis–E-payment & Staff training needs

Q41: Do you still need to develop your knowledge and skills in the electronic payment education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	58	90.6	90.6	90.6
	Partially agree	2	3.1	3.1	93.8
	Not Agree	4	6.3	6.3	100.0
	Total	64	100.0	100.0	

It is also clear from the analysis that 79.7% of the employees (51 employees from the sample) have received some financial learning related to electronic payment services, either through their

readings or by attending specialized trainings in the institution It also notes from the statistical analysis that their skills have been developed to implement the electronic payment services in the institution, and that 93.7% of the employees (60 employees in the sample) are still in constant need of training on the electronic financial payment services in the institution.

Table 43 - statistics Standards of the research

		Acceptance factor	Accessibility factor	Security Factor	Employee Turnover	Employee Satisfaction	Employee's Knowledge and development	I-Independent variable: The adoption of the Electronic Payment Services	II- Dependent Variable: The Employees Performance of the microfinance institution
N	Valid	64	64	64	64	64	64	64	64
	Missing	0	0	0	0	0	0	0	0
Mean		1.34	1.14	1.13	1.81	1.81	1.81	1.19	1.81
Std. Deviation		.479	.350	.333	.467	.393	.393	.393	.393

As shown in the 3 factors of independent variable (the implementation of the electronic payment services at REDEC Qena Microfinance institution), more than 80% of the Employees totally agree that there is accessibility and secured electronic payment while acceptance factor (65%), from the customers still need more action from the microfinance institution by providing the active customers, an effective digital financial education literacy activity.

Table 44 - I-Independent variable: The adoption of the Electronic Payment Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	52	81.3	81.3	81.3
	Partially agree	12	18.8	18.8	100.0
	Total	64	100.0	100.0	

Table 45 -Acceptance factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	42	65.6	65.6	65.6
	Partially agree	22	34.4	34.4	100.0
	Total	64	100.0	100.0	

Table 46 -Accessibility factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	55	85.9	85.9	85.9
	Partially agree	9	14.1	14.1	100.0
	Total	64	100.0	100.0	

Table 47 - Accessibility factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally Yes	56	87.5	87.5	87.5
	Partially Yes	8	12.5	12.5	100.0
	Total	64	100.0	100.0	

As shown in the 3 factors of the dependent variable (The Employees Performance at REDEC Qena Microfinance institution), more than 80% of the Employees partially agree that there is accessibility and secured electronic payment while acceptance factor (65%), from the customers still need more action from the microfinance institution by providing the active customers, an effective digital financial education literacy activity.

Table 48 - II- Dependent Variable: The Employees Performance of the microfinance nstitution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	12	18.8	18.8	18.8
	Partially agree	52	81.3	81.3	100.0
	Total	64	100.0	100.0	

Table 49 - Employee Turnover Factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	14	21.9	21.9	21.9
	Partially agree	48	75.0	75.0	96.9
	Not Agree	2	3.1	3.1	100.0
	Total	64	100.0	100.0	

Table 50 - Employee Satisfaction Factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	12	18.8	18.8	18.8
	Partially agree	52	81.3	81.3	100.0
	Total	64	100.0	100.0	

Table 51 - Employee's Knowledge and development Factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	12	18.8	18.8	18.8
	Partially agree	52	81.3	81.3	100.0
	Total	64	100.0	100.0	

Results of the Research

Empirical analysis: After using the SPSS program, the following are the results:

1.1 The relation of the independent variable (*the implementation of the electronic payment services at the microfinance institution*) and dependent variable (*the employee's performance of the microfinance institution*).

First: the descriptive statistics of the test

The mean, standard deviation, and number of the impact of *the implementation of the electronic payment services at the microfinance institution* in the dependent variable that related to *the employee's performance of the microfinance institution*.

Table 52 -The mean, Standard deviation, and number of the impact f the Independent and dependent variables

Variables	Mean	**Std. Deviation**	N
The Independent variable: the implementation of the electronic payment services at the microfinance institution	2.4	0.25	64
The Dependent variable: The employee's performance of the microfinance institution.	2.7	0.285	64

It is evident from Table (12.1) that the arithmetic average for the axis of *the implementation of the electronic payment services* is 2.4 and its percentage rose to 2.7 in the axis of the main factors related to *The employee's performance of the microfinance institution*, and this means that *the effect is positive in favor of the dependent variable*.

Second: Strengths of the correlation between the axis of the independent and dependent variable and the regression results:

Table 53 - Results of the Pearson test to determine strengths of the relationship between the dependent variable and the independent variable,

Variables	**Pearson correlation**	**Sig**
The direction and the strengthening relationship between the implementation of the electronic payment services at the microfinance institution and The employee's performance of the microfinance institution	0.621	0.00

It is clear from Table (12.2) that the significant relationship between the independent variable *the implementation of the electronic payment services at the microfinance institution* and the dependent variable *The employee's performance of the microfinance institution* and the strength of influence between them is 0.62, *meaning that the implementation of the electronic payment services* affects the dependent variable.

Table 54 -Regression Results

Variables	**R**	**R square**	**Adjusted r square**	**F**	**Sig f**	**B**	**T**	**Sig t**
The effect of the dependent variable on the independent variable	0.621	0.386	0.376	39.007	0.00	0.925 0.545	3.859 6.246	0.00 0.00

It is clear from Table (3) the relation between the independent variable *the implementation of the electronic payment services at the microfinance institution* and dependent variable (*The employee's performance of the microfinance institution*, and here we considered that the independent variable contains these axes (the acceptability factor - the accessibility factor - the

security factor) and dependent variable contains these axes (Employees turnover factor, Employees Satisfaction Factor and Employees Knowledge and skills development Factor).

The results showed that the regression model is significant through the (f) value of 39.0 with a significant significance of 0.00 less than the level of significance 0.01, and the results explain that *the implementation of the electronic payment services at the microfinance institution explains* 38.6% of the dependent variable that related to *The employee's performance of the microfinance institution* given the coefficient of R square, and the value of B, which find the relation between the implementation of the *electronic payment services* and the employees *performance of the microfinance institution*, with a value of 0.925, which is statistically significant. The employee's *performance of the microfinance institution* increased by 0.925. Thus, the study refused the null hypothesis and accept the alternative hypothesis of the implementation of the *electronic payment services* has an impact on dependent variable related to *The employee's performance of the microfinance institution*.

Conclusion:

This research study proof, there is a direct positive relation between the implementation of the electronic payment services and the positive employee's performance of the microfinance institution. In addition, it is proof there is a positive acceptance from the microfinance institution staff and customers to the electronic payment services and products. In a third world country like Egypt and very low development region like upper Egypt, the research study proof there is a good dissemination and accessibility of the electronic payment services to the microfinance customers. Although the employees and customers awareness are not complete to achieve the full implementation of electronic payment services, it was not a tangible obstacle in this study, which reflects the need and positive behavior acceptable to both customers and employees. That reflect a complete trust from the employees and customers on the electronic payment services. The study indicates that the is no existed employee's turnover and problems related to the implementation of the electronic payment services. Finally, the study concludes the important of employees' knowledge and skills on advanced digital financial Services education skills in the microfinance institution.

Recommendations:

As much as the electronic payment services is very important to the day and night financial life especially the effectiveness and efficiency of managing the microfinance institution: especially in: Reduce the manual work process among the staff, reduce work time and efforts in handing paperwork. The electronic payment services are very important solution to dissemination of Covid-19 pandemic conditions. Also, it is effectively supporting the accelerate the cash in and out cycle rapidly to gain easy revenue to the microfinance institution. For that reasons the electronic payment services are a potential fintech services and products that important to the microfinance institution to invest in it. At the end the main results of this study came with some major recommendations. To increase both staff awareness on how to convince and motivate the customers on the important of adopting and using the electronic payment services at the Microfinance Inactions. The important to have clear digital financial education and literacy for both the new heired staff and the illustrated or low education customers. It is important too to form challenges, constraints and risk digital management team that will be assigned to solve day and night managerial troubles of adopting the electronic payment services. The Microfinance institutions should give more investments in effectively integrating the financial, information management and human resource systems with the electronic payment services. Finally, the microfinance institution should diversify its electronic payment system and should get sustainable and periodical feedback for its customers and staff on the implementation of the electronic payment services and measure the changes on the employee's performance.

Some important recommendations raised up from this research study like: To advocate the policy makers and regulators to make the charges and fees of the electronic payment services more suitable to the customers – and provide motivation incentives to the customers to attract them to utilize the adopted electronic payment services. To advocate the regulators and electronic payments services players to participate in developing, designing, testing, and evaluating the electronic payment services among both staff and customers of the microfinance institution.

Limitation:

The study faced some small limitation that related to the number of the employees that were interviewed and statistically analyzed. In addition, the study and research implementation time had faced a misappropriated time of implementation (Closure of the financial fiscal year of the microfinance institution) that contributed to provide limited number of the employees (The study planned to reach sample number of 100 employees and the research reached only 64 employees). In addition, the study faced limited number of literatures on the Microfinance employee's performance and the implementation of the electronic payment services.

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Appendix

The Study Questionnaire

I- General Information

( ) أنثي Female	( ) ذكر Male	2. النوع: Gender			1. اسم المبحوث: Name of interview
( ) أخري تذكر Others		( ) دراسات عليا High Studies	( ) جامعة University	( ) متوسط Secondary	3. الحالة التعليمية: Education Status
		5. عدد سنوات الخبرة: Years of experiences inside the initiation			4. الوظيفة داخل مؤسسة التمويل: Position inside the Ionisation
					6. التدريبات والدراسات: Received Training subjects
( ) لم أقيم من قبل Not appraised	( ) أكثر من سنة More one year	( ) سنة One year	( ) أقل من سنة Less 1 year		7. متي تم تقييم ادائك الوظيفي أخر مرة؟ Last appraisal time?
( ) ممتاز Excellent	( ) جيد جدا Very good	( ) جيد Good	( ) مقبول Accepted		8. ما هي نتيجة التقييم

II- The independent variable: the implementation of the electronic payment services at REDEC Qena Microfinance Institution.

لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	1. Acceptability Factor
			9. هل يتقبل العملاء خدمات الدفع الإلكتروني المقدمة لهم؟ Does the Electronic payment Services is fully accepted by the customers?
			10. هل خدمات الدفع الإلكتروني قادرة على السماح باسترداد الأموال؟ Do the Electronic payment services is able to allow refunds?
			11. هل خدمات الدفع الإلكتروني تتيح تعقب المعاملات المالية، خاصة في حالة الأنشطة غير القانونية؟

			Do the Electronic payment services trace back the transaction, particularly in the case of illegal activities?
			12. هل خدمات الدفع الإلكتروني تتيح (سحب وايداع) النقود في أي وقت؟ Do the Electronic payment services is convenient as cash to use on any time?
			13. هل يتقبل العميل تحمله لرسوم تكلفة استخدام خدمات الدفع الإلكتروني؟ Does the charges of the electronic payment services is associated with the customers?

لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	2. **Accessibility factor**
			14. هل تصل خدمات الدفع الإلكتروني إلي المستخدمين بسهولة؟ Does the Electronic payment services is easily accessible with the users?
			15. هل خدمات الدفع الإلكتروني عالية الجودة من حيث (الوقت – الاتاحة – السهولة- ....)؟ Does the provision is high quality for the electronic payment services?
			16. هل تتسم أنظمة الدفع الإلكتروني بالمرونة؟ Is the Electronic payment is flexible to the microfinance institution?
			17. هل هناك حد أقصي للسحب اليومي علي خدمات الدفع الإلكتروني؟ Do you have max limit for cash withdraw by the electronic payment Services
			18. هل هناك حد أقصي للإيداع اليومي علي خدمات الدفع الإلكتروني؟ Do you have max limit for cash deposit/payment by the electronic payment Services?

لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	3. **Security Factor:**
			19. هل لدي العملاء وعي كافي حول استخدام أنظمة الدفع الإلكتروني؟

			Does the customers have enough awareness and sensitization of the use of electronic payment systems?
			20. هل تقدم مؤسسة التمويل أي توعية لعملائها حول الاستخدام الامن لأنظمة الدفع الإلكتروني؟ Is the financial institution is providing the appropriate awareness to build the confidence of users on the electronic payment services?
			21. هل يثق العملاء/المستخدمين في أنظمة خدمات الدفع الإلكتروني؟ Is the customer of the initiation is trusting on the provided E-payment services?
			22. هل تستطيع مؤسسة التمويل الحفاظ على ثقة العملاء وضمان الحفاظ خصوصيتهم في ظل استخدام أنظمة الدفع الالكتروني؟ Does the microfinance institution can maintain public confidence to ensure customer privacy?
			23. هل تستطيع مؤسسة التمويل حماية تفاصيل معاملات وبيانات العملاء من الاحتيال الداخلي والخارجي في ظل استخدام أنظمة الدفع الالكتروني؟ Does the microfinance institution can protect the details of transactions and customers from internal and external fraud/criminal usage?

III- The dependent variable: Employee's performance of REDEC Qena Microfinance Institution

لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	1. Employee Turnover
			24. هل معارف ومهارات موظفي مؤسسة التمويل الحاليين تساعدهم علي تطبيق نظام الدفع الإلكتروني؟ Will the Electronic payment services make the Institution's jobs irrelevant to its' Employees in their knowledge and skills in the electronic payment's services?
			25. هل زاد معدل دوران موظفي مؤسسة التمويل (الاستقالات) منذ بدأ تطبيق تكنولوجيا الدفع الإلكتروني و أنظمته؟ Is there relationship evidence between employees' turnover and the current adoption of the electronic payment technology and services?
			26. هل يواجه موظفي التمويل بمؤسسة التمويل تحديات أثناء تنفيذ أنظمة الدفع الإلكتروني؟ Is the institution's employees' is facing a challenge that affect the adaptation and the implementation of the electronic payment services?
			27. هل زادت كفاءة موظفي مؤسسة التمويل (القيام بالعمل بشكل صحيح) بعد تطبيق نظام الدفع الإلكتروني في مؤسسة التمويل؟ Is the quality of work end results for the institution's employee was improved, after applying the electronic payment services in the institution?
			28. هل زادت فاعلية موظفي مؤسسة التمويل (القيام بالعمل بشكل صحيح وتحقيق هدفهم الوظيفي) بعد تطبيق نظام الدفع الإلكتروني في مؤسسة التمويل؟ Is the quality of efficiency for the institution's employee was improved, after applying the electronic payment services in the institution?
			29. هل زادت إنتاجية موظفي مؤسسة التمويل (تحقيق المستهدف الفردي لكل موظف) بعد تطبيق نظام الدفع الإلكتروني في مؤسسة التمويل؟

			Is the quality of productivity for the institution's employee was improved, after applying the electronic payment services in the institution?
			30. هل ساعد تطبيق خدمات الدفع الالكتروني الموظفين علي اكتشاف المشكلات المتعلقة بعمليات التمويل للعملاء؟ Is The Institution's employees tracking and solving their work problems after adopting the electronic payments services?
			31. هل قلل تطبيق نظام الدفع الالكتروني من الأعباء الوظيفية لموظفي التمويل داخل مؤسسة التمويل؟ Is the Initiation's employee's workload were reduced?
لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	**2. Institution's Employee Satisfaction Factor**
			32. هل انت راضي عن ادائك الوظيفي بعد اعتماد نظام الدفع الإلكتروني بمؤسستك؟ Are you satisfied with your performance after adopting the electronic payment services?
			33. هل انت راضي عن النظام الذي تتبعه مؤسستك عند تطبيق الدفع الإلكتروني؟ Are you satisfied with the system that your institutions is follow to adopt the electronic payment services?
			34. هل أنت راضي عن طريقة إدارتك في حل المشكلات التي تواجه تطبيق نظام الدفع الإلكتروني؟ Are you satisfied with the way that your institution is followed to manage the problems that facing the implementation of the electronic payment services?
			35. هل تغيير الهدف الوظيفي المستقبلي الخاص بك بعد تطبيق نظام الدفع الإلكتروني والتغيرات التقنية التي حدثت في مؤسسة التمويل؟

			Does your future career development had been changed because of the implementation of the electronic payment services?
			36. هل تقبلت نظام الدفع الإلكتروني في مؤسسة التمويل الأصغر باعتباره ثقافة تقنية جديدة غير مدفوعة نقدًا؟ Do the employees will accept the electronic payment service at the Microfinance institution as a new noncash payment tech-culture?
			37. هل أدى نظام الدفع الإلكتروني إلى التغيير في ساعات العمل؟ Are the electronic payment services led to change in working hours in the institution?
			38. هل ادى تطبيق نظام الدفع الالكتروني الى خفض خطوات العمل الخاصة بك؟ Are the electronic payment services led to reduction in processing of work in the institution?
			39. هل ساعد تطبيق نظام الدفع الإلكتروني علي تسريع العمليات الإدارية وسهولة اتخاذ القرار؟ Are the electronic payment services led to help Management and decision-making processes?
لا بشكل كامل Not Agree	لحد ما Partially agree	نعم بشكل كامل Totally agree	**3. Employee's Knowledge and development factor**
			40. هل تلقيت أي نوع من أنواع التعليم المالي المرتبط بالدفع الإلكتروني؟ Did you receive any type of Financial Electronic Payment education?
			41. هل قمت بتنمية معارفك ومهاراتك حول نظام الدفع الالكتروني؟ Did you improve your electronic payment knowledge and skills personally by yourself?
			42. هل لازلت تحتاج إلي اكتساب معارف ومهارات جديدة حول كيفية تطبيق نظام الدفع الإلكتروني؟ Do you still need to develop your knowledge and skills in the electronic payment education?